Engineering
Library

December 29, 1921

Engineering News-Record

Devoted to Civil Engineering and Contracting
McGraw-Hill Company, Inc.

Raising a Sunken Dredge in the Port of Portland, Ore.

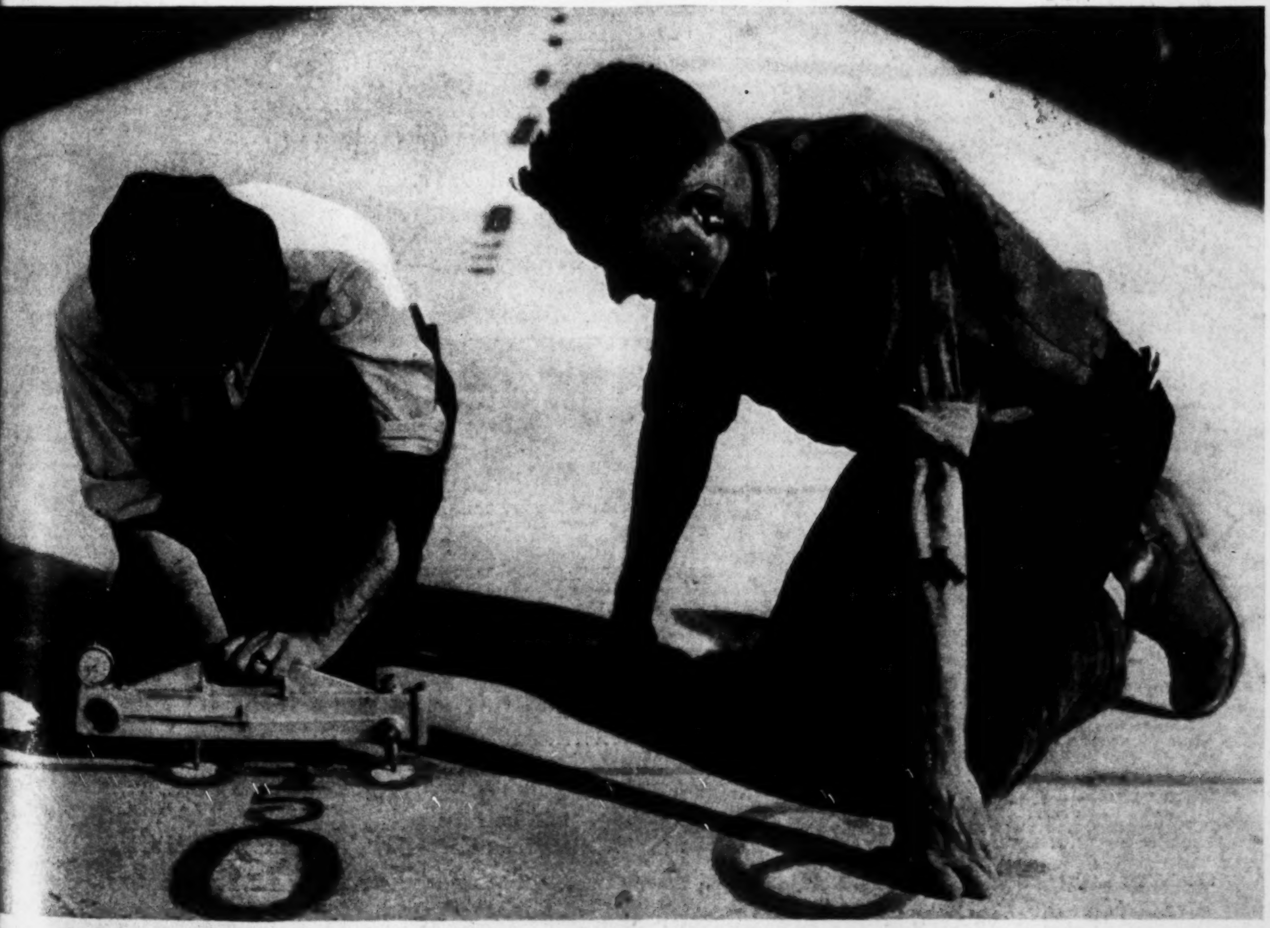
Initial Results from Road Test at Pittsburg, Cal.

Utilizing Gas from Sewage Sludge

Two Recent Cases of Water-Rights Litigation

The Probable Frequency of Intense Rainfall

Measuring Movement in the Concrete Test Road Slab at Pittsburg, Cal.



A New Year Resolution

Sizes of Pipes, Inches				CAPACITIES IN GALLONS PER MINUTE	Horse Power Boiler	AND NOTE
No.	Steam	Suction	Discharge			Weight Pounds
2	¼	1½	1½	25	4	95
3	⅜	2	2	70	5	140
4	½	2½	2½	125	6	295
5	½	3	3	200	9	430
6	¾	3½	3½	350	12	570
7	¾	4	4	450	15	745
8	1	5	5	750	25	1,375
9	1½	7	6	1,100	35	2,100
10	2	8	8	2,200	70	3,800

Whereas the Pulsometer is particularly adapted for handling muddy, gritty water and

Whereas the Pulsometer will pump water containing sand, gravel and stones —and

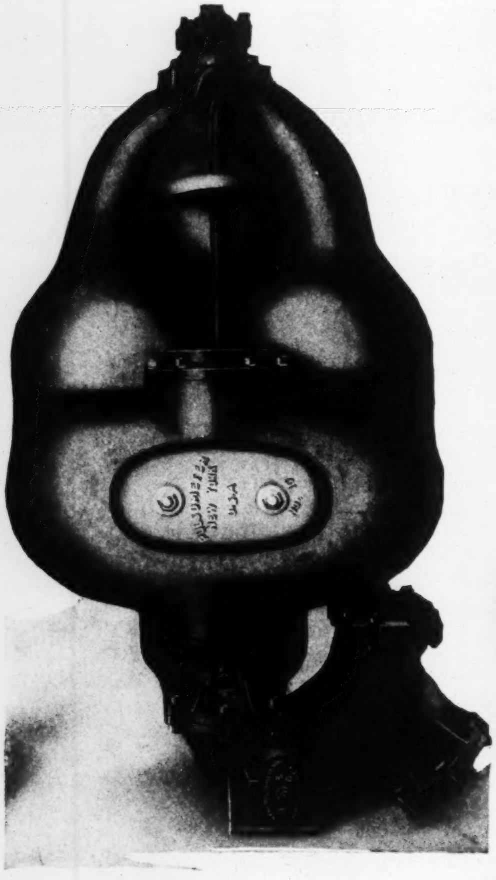
Whereas the Pulsometer is the only pump in existence that never requires lubrication—and

Whereas the Pulsometer needs no foundation, no packing, no belting, no attention—be it therefore

RESOLVED

that during the year 1922 and every year thereafter, you, as a wise contractor, will use the Pulsometer to do your pumping in sewer and foundation work, cofferdams, caissons, etc., and to save you money, time, worry, steam and labor.

Man! Some pledge—once taken, never broken!!



PULSOMETER STEAM PUMP

PULSOMETER STEAM PUMP CO.

Executive Offices: 225 West 42nd Street, New York, N. Y.

Agencies in Following Cities

Henry H. Meyer Company
110 S. Howard St..........BALTIMORE
Kelly-Derby Co., Inc.,
Peoples Gas Bldg..............CHICAGO
Queen City Supply Co.,
S. W. cor. Elm and Pearl St..CINCINNATI
Beckwith Machinery Co.,
1500-02 Lakeside Ave.......CLEVELAND
The K. B. Noble Company
249 Pearl St.........HARTFORD, CONN.
J. L. Welborn........HATTIESBURG, MISS.
Miller Supply Co....HUNTINGTON, W. VA.

H. A. Paine, 119 Main St....HOUSTON, TEX.
Harron, Rickard & McCone,
225 S. San Pedro St., LOS ANGELES, CAL.
Hunter Machinery Co.,
208 Wells St..............MILWAUKEE
Wm. H. Ziegler Company,
423 E. Fifth St..........MINNEAPOLIS
Turner Supply Co...........MOBILE, ALA.
F. H. Hopkins Company........MONTREAL
Woodward Wight & Company, Ltd.,
NEW ORLEANS
Berow Machinery Co.,
220 West 42nd St......NEW YORK CITY

Edelen & Co.,
235 Commercial Trust Bldg.,
PHILADELPHIA
Beckwith Machinery Co.,
108 Parkway, N. S.........PITTSBURGH
Harron, Rickard & McCone,
139 Townsend St.......SAN FRANCISCO
J. A. Manion, Henry Bldg.........SEATTLE
A. R. Williams Machinery Co.,
TORONTO, CAN.
W. L. Sullivan..............TULSA, OKLA
Kelly Powell, Ltd......WINNIPEG, CANADA

2053 M

A Consolidation of Engineering News and Engineering Record
McGraw-Hill Company, Inc.—JAMES H. MCGRAW, President

ENGINEERING NEWS-RECORD

DEVOTED TO CIVIL ENGINEERING
AND CONTRACTING

E. J. MEHREN
Editor

Volume 87
NEW YORK, DECEMBER 29, 1921
Number 26

What Is a Million Dollars?

IT IS EASY to read figures, even when a dollar sign is placed in front of them, without knowing quite what they mean. Take the case of bonds: this or that municipality sells without difficulty—say, as in the case of New York recently, $55,000,000 worth. What *is* $55,000,000? Perhaps your salary is $5,000 a year. Then, New York has gone in debt to the further amount of 11,000 years of your salary. But what is a mere 11,000 years! Public bond sales in 1921 exceeded one billion dollars—200,000 years of your financial life at $5,000. On the other hand, 20,000 men on this salary could pay off these bonds in ten years, if the cost of living were zero. The point is, millions of public dollars are worth watching when they are considered in terms of labor.

A Census in 1925

HEARTY support should be given to Secretary Hoover's advocacy of a national census in 1925. While perhaps the plan will receive most widespread approval by those who are dissatisfied with the 1920 count because its results were based on a temporary and abnormal distribution of population, there are other strong arguments for a census not only in 1925 but also midway between each decennial census. A country with more than a hundred million people, with hundreds of rapidly growing cities and thousands of industrial and political interests depending largely upon reasonably exact knowledge of population change should no longer rest content with a decennial census. Population estimates carried through a period of ten years are necessarily uncertain and likely to mislead where vital interests are concerned. For the present, at least, the census in the years ending in five might well be restricted to population, and that schedule be simplified and limited to a mere count of persons, ages, sex and perhaps nationalities. With our permanent Census Bureau this should be an easy and short task and the results could be announced in detail much sooner than is done under the more elaborate decennial plan. The resulting benefits would be many and large, especially to engineers.

The Pittsburg Road Tests

INTEREST in the tests to destruction of the reinforced-concrete road, in the form of an elliptical track, construction of which was completed recently at Pittsburg, Cal., has centered, up to the present, upon the methods employed in building the roadway and the unusually elaborate equipment installed to determine the effects of motor truck traffic, temperature and moisture. A new phase of this research work has been reached with the publication, in this week's issue, of certain preliminary observations made since traffic started its procession around the track on Nov. 9. In other words the work has passed through the planning and construction stages into that of operation. It is still too early, of course, for the real story of what the results show. Nevertheless the indications thus far made are well worth studying, for a number of significant facts were disclosed by the measuring and recording apparatus before traffic began. The California engineers have already learned some interesting things regarding the influence of temperature changes and Pittsburg has become the objective of scores of highway engineers interested in research work. In no sense are the results which will be based on the data now being collected to be considered as merely of local significance. Lessons from the Pittsburg tests will surely have a decided bearing on the future design of concrete roads, particularly with regard to reinforcement and subgrade problems.

Litigation Yields to Irrigation

RUINOUS is none too strong a word to apply to the differences over water rights that have caused so much conflict and thwarted so much development of irrigation and water power in Western North America. It it is therefore with great pleasure that we record in two articles elsewhere in this issue (1) a working agreement as to the use of water and a postponement of all litigation in the Kings River Valley, California, and (2) an order of the International Commission interpreting the St. Mary and Milk River article in the treaty between the United States and Great Britain regarding the Canadian-United States boundary waters. In the Kings River case it was a committee of engineers that effected a temporary agreement which it is hoped will open the way to provide ample water for 400,000 acres in the Kings River valley in addition to the 800,000 already fairly supplied, and thus end thirty years of hampering litigation. The St. Mary and Milk River order is of greater import, in itself and because of its international aspect, and its promise of continued amity not only with our northern neighbor but with Great Britain as well. This international order gives permanency to the temporary working basis previously worked out and administered by engineers of the United States and Canadian reclamation and irrigation services. In both the California and the international agreements engineers and common sense have been able to overcome the barriers that the lawyers have been unable to surmount, if indeed these barriers were not largely of their own creation.

Vision——Achievement

ANOTHER milestone in the progress of engineering was marked when President Harding's Armistice Day address over the bier of America's Unknown Soldier at the Arlington National Cemetery was heard not alone by the vast throng there gathered but also by other large assemblies in New York and San Francisco. This was made possible by the electrical amplifier and the loud-speaking device which have been perfected by telephone engineers after long and patient endeavor.

These men of vision and achievement look forward to the time when President's messages may be heard wherever the telephone reaches. Thus may a great nation be thrilled as one man, for, quick as is the daily press to spread the President's message abroad, the telephone is instantaneous and has all the many advantages of the spoken over the written or printed word. Next we may expect a simultaneous means of transmitting photographic images, so that posture, gesture and facial expression may be conveyed to the eye at the same time as words and voice inflections. Add to this a similar transmission of color as well as form and motion and how marvelous would be the whole! To do all three seems less marvelous now than would telegraphy a hundred, telephony fifty, or airplane flight twenty years ago. With each new engineering achievement one feels like changing the well known "wonders will never cease" to "when will wonders cease?" But the engineer knows that each marvel in his field only opens new and more splendid visions. It is for him not only to see the vision but to bridge the gap between vision and achievement.

Engineering Traffic Control

IN RECOMMENDING the rerouting of numerous street railway lines in New York City last week, Daniel L. Turner, consulting engineer of the New York Transit Commission, took a very definite step forward in the engineering control of our cities. To reroute car lines in order to better rapid transit conditions is not unique, though it is uncommon to have the recommendations come from other than the companies themselves. To clear certain streets of trolleys so that through motor routes will be provided is, on the other hand, a decidedly novel procedure. It is becoming increasingly apparent that the big municipal engineering problem of the next decade is traffic control. As *Engineering News-Record* has often pointed out, it has, in our larger cities, passed beyond the province of the police, who can only exercise an arbitrary and human control, and has become a matter of street opening and clearing and of physical arrangement of the city so that traffic takes certain routes because they prove the most economical and convenient, and not because a policeman directs it there. Mr. Turner's scheme is intended to do just this, and is important because it recognizes the fundamental engineering nature of street-traffic distribution.

Rerouting Street Cars

MR. TURNER'S suggestions are interesting for more than their specific solution of a problem in the metropolis. New York is not the only city where car tracks are on streets where they should not be today. Most of our city car lines are on routes determined in the early days of rapid transit, when every merchant wanted a street car by his door and when street traffic was hardly any problem at all. Conditions today may demand an entirely different system of routing, but franchise rights and the expense of moving act jointly to prevent any radical rerouting. In consequence, street car changes in most of our cities consist mainly in adding new routes and but rarely in a better distribution of the traffic lanes and removal of the traffic impediments fixed by car tracks. Just now few cities are provided with the legal machinery for revamping transit conditions that exist in New York. but the time is fast coming when all will have to be and when it does the city's engineers will have the responsibility of doing the work. Study of methods and results is therefore incumbent on the profession.

Too Many Automobile Killings

WHAT traffic control means in preservation of life is strikingly indicated by the comparative mortality from typhoid and automobiles, noted on p. 1074. More people are killed by automobiles than by typhoid in the registration area, where presumably both water-supply protection and traffic control are more rigid than in the remainder of the country. It was not so long ago the big city typhoid rate was above 20 per 100,000. Millions have been spent in water-purification and sanitation to bring this figure down. And yet nearly half as many people are being killed today by automobiles, with the probabilities that in our cities the automobile killings are much higher. It will pay to spend some money to save life.

Pressure for Economic Conference

WE HAVE urged in these columns that following the Disarmament and Far Eastern Conference there was needed an international meeting to adjust the world's economic difficulties. To our mind, land disarmament is a necessary precedent to satisfactory financial adjustment, but as to land disarmament, there is little continuous pressure, unless it is from the internal financial burden of those European countries which are supporting large armies. However, there is considerable momentum to the demand that there be an international economic conference. Just before adjournment, Senator France introduced a resolution authorizing and directing the President to call such a conference, the participants to include all recognized nations, with their colonies. In addition there are strong forces in both the American and European press advocating such a meeting.

It seems inevitable that these demands will result in such a conference, provided that on final adjournment the conference now under way in Washington will have proved a distinct success. With that example before it an economic conference might be able to make considerable headway in working out a solution for the present knotty international economic problems.

Open-Price Association Decision

NOTE was made in these columns last week that the U. S. Supreme Court had handed down its decision in the Hardwood Manufacturers' case—a decision long awaited with interest, because it involved the legitimacy of the "open-price" form of trade association. The decision is an affirmation of that of the lower court and, accordingly, enjoins the American Hardwood Manufacturers Association from distributing stock, production and sales reports, prohibits the discussion of prices at meetings and the giving of advice as to future production and prices. The court holds the association to be a combination in restraint of trade within the meaning of the Sherman (Anti-Trust) law. The court divided on the case six to three.

It might be inferred from the full confirmation of the lower court's decree that the decision may be taken as final on all the activities of open-price associations. From our reading of the opinion, however, we do not take that to be the case. We judge it to be final as to one activity only—advising on future action. On other activities, as we see it, the subject still calls for the broad consideration of the court.

In the usual form of open-price associations the activities extend only to the exchange of information regarding production, stocks and shipments, and, as to prices, to current lists and figures on closed transactions. No attempt is made to estimate future price trends or to suggest the effect of future production on prices. But just this the Hardwood Manufacturers did do, and it is this that distinguishes their practice from that of other open-price associations. Around this point the whole opinion of the court is made to revolve. The argument is on the evidence that the association repeatedly suggested that curtailment of production would result in higher prices. Higher prices did follow, and the court connected the rise with the advisory work of the association.

With the whole opinion swinging on this feature of the case, then, we do not believe that the decision can be held as final on purely statistical activities. Obviously, though, the conduct of these activities *in combination* with suggestion as to future functioning is now under the ban of the law.

The decision has all the more interest because on Nov. 1 the U. S. District Court of the Northern District of Illinois held that the dissemination of data on prices, sales, stocks, etc., by the linseed-oil crushers did not contravene the law. This case will undoubtedly reach the Supreme Court and thus occasion a ruling on an association which limits its activities to the exchange of data on facts and closed transactions.

* * *

Among business men the decision in the Hardwood Manufacturers' case was not unexpected. There was a feeling that the advisory work of the association was "a step too far." On the other hand, the feeling is strong that the reporting of past transactions is within the law and will be so held by the courts—a view thus far confirmed in the linseed-oil case. In the latter view, also, this journal has concurred, as the readers will recall.

While, however, we have inclined to the belief that the exchange of information upon closed transactions would be lawful, we have not held that, as practiced, the exchange is good policy. In fact, we believe it would be better for business if full publicity were given to the figures collected by open-price and trade associations. To send them to the Department of Justice and to the Federal Trade Commission avails nothing for the purpose we have in mind; it does not take the public into the industry's confidence, and the public, kept in ignorance of the association's functioning but keenly realizing its potential power, becomes suspicious.

We cannot agree with the view expressed in the linseed-oil argument that the exchange of information between association members is on a par with the activities of open exchanges, such as the Cotton Exchange, the Chicago Board of Trade, etc. It distinctly is not. The very essence of the confidence enjoyed by exchanges is their full publicity. The transactions and prices are open to everyone, are published daily in the public prints. Would the New York Stock Exchange be able to survive public suspicion if its operations were held secret to its members; would the Chicago Live Stock Market be able to survive?

This matter of publicity is emphasized by the opinion on the hardwood case. In the next to last paragraph we find these words:

"In the presence of this record it is futile to argue that the purpose of the 'Plan' was simply to furnish those engaged in this industry, with widely scattered units, the equivalent of such information as is contained in the newspaper and Government publications with respect to the market for commodities sold on boards of trade or stock exchanges. One distinguishing and sufficient difference is that the published reports go to both seller and buyer, but these reports go to the seller only."

In this view, we believe, there is hearty public concurrence.

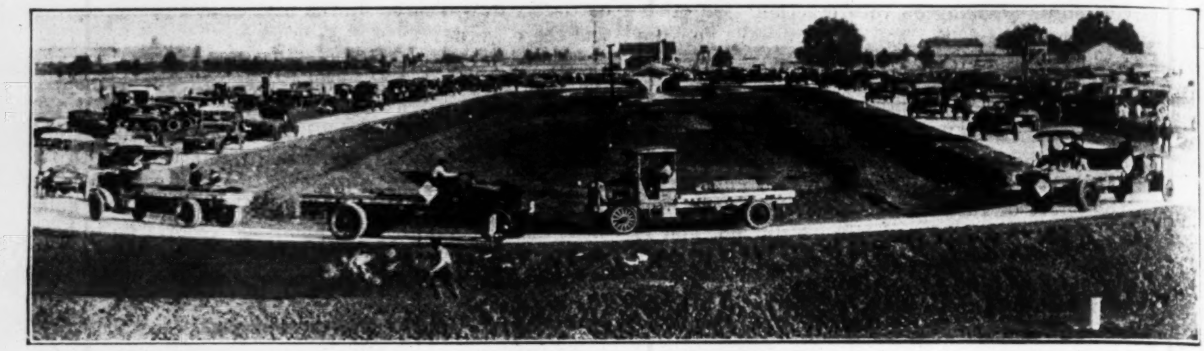
Moreover, even if the present method of exchange of price information should be found lawful, we are not convinced that it will always, or even for long, remain so. The public is firm in its determination to protect the records of individual businesses but it has not the same feeling toward associations, particularly toward those that are known to deal with prices. The war increases were, in part, responsible for this; but the suspicion and condemnation have become more serious on account of disclosures of collusive acts of trade associations in the building-materials field. Is it not possible that this feeling will make itself felt in legislative halls, with the result that the publication of all figures collected by associations may be forced by law? In fact, will it not be fortunate if the people do not go to severely restrictive measures? The railroads followed a "public be damned" policy, and the public put them under drastic regulation.

As an instance of the displeasure caused by lack of frankness, take the cement industry. As we have stated before, we believe that a majority of engineers and contractors believe that the cement companies agree on prices; many believe that they restrict territories. If the industry were frank about its statistics—and had been frank about them for many years—the feeling toward the industry would be much better. The surprising fact is that the attitude of the industry has not changed. As far back as 1913, before there was an open-price association in the cement or in any other industry, *Engineering Record* sought to publish the statistics on production, stocks and shipments of the Association of American Portland Cement Manufacturers (the predecessor of the Portland Cement Association) but was refused permission. That was at least understandable then. But the request has been made since upon the officers of the Portland Cement Association, but without avail. Even the publication of these figures, which do not involve prices, would have tended to prevent the development of the present unfavorable feeling.

The policy, in our judgment, is shortsighted not only on the part of the Portland Cement Association, but of other trade associations, whether of the open-price form or not, which keep their statistics secret. In reference to the cement industry, it is of interest to note that an influential group of consumers recently discussed means by which an open cement exchange could be established—another direction in which public pressure may be exerted on industries which are mistrusted.

* * *

On the main question, however, of the legitimacy of trade associations which exchange information only on closed transactions, we have not yet had, it would seem to us, the last word of the court.



GENERAL VIEW OF TEST HIGHWAY AT PITTSBURG, CAL.
(Note embankment to be used later for flooding. The two lines of traffic move in opposite directions.)

Variety of Movements Occur In Concrete Test Highway

Cracks In Pavement Come On Crests of Longitudinal Waves—Edges Curve Up In Daytime and Down At Night—Test Continuing

DEFINITE results have become apparent even since Nov. 9, when motor truck traffic started tests to destruction of the reinforced concrete roadway built near Pittsburg, Cal. A statement of the types of pavement built and the scope of the tests was published in *Engineering News-Record* Aug. 18, 1921, p. 276 and a note announcing the beginning of traffic appeared Nov. 24, p. 873. Although new information is being added continually, records made prior to Dec. 1 consistently indicate the following: (1) Irregular longitudinal buckling or wave movement in the slabs, with "contraction cracks" occurring at the crests of the waves; (2) warping of the pavement cross-section, varying with the time of day, the edges cupping up at night and curving down in the daytime; (3) temperature differences of 6 or 7 deg. F. between top and bottom of pavement, the top being about 6 deg. colder in the morning and 7 deg. warmer in the afternoon. Another unexpected development is that at the end of four months of dry weather after the pavement was finished, the adobe subgrade under the center of the slab was found to have a greater moisture content than when the work was started. Laboratory tests showed this content to average 13 to 14 per cent by weight, and in one instance 27 per cent.

MAKING EXTENSOMETER MEASUREMENTS ON PAVEMENT SURFACE
(White spots in foreground on center line show location of mercury pockets where slab temperatures were taken.)

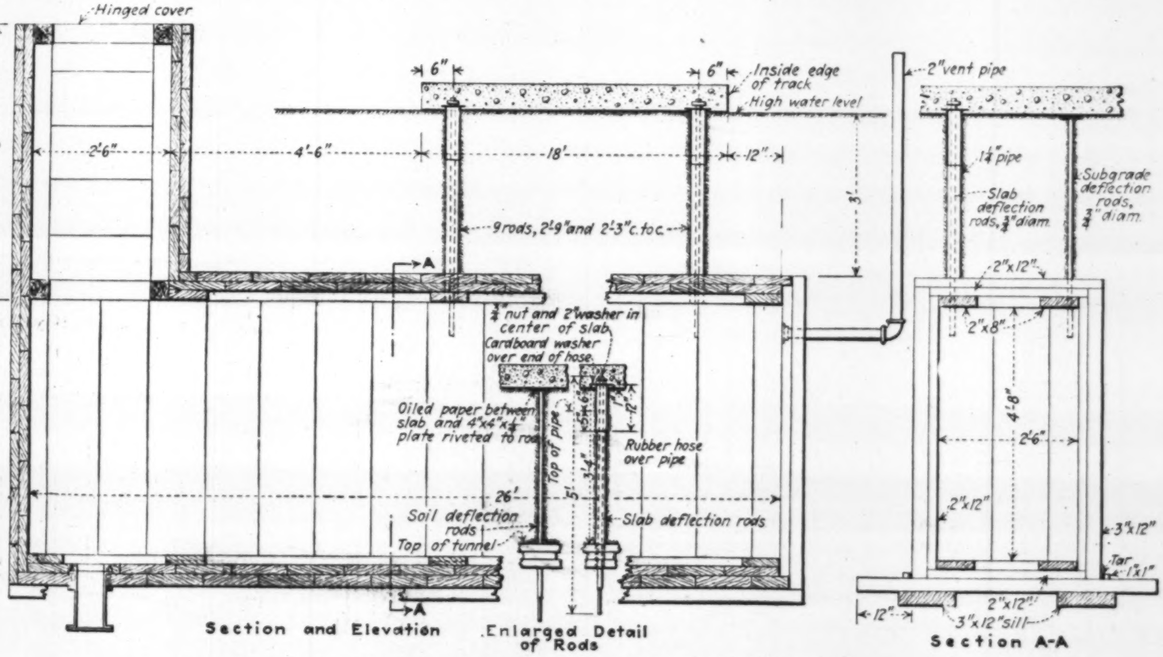
After two weeks of continuous and intermittent traffic a total of about 730,000 tons, chiefly in the form of solid-tired trucks, each with a gross weight of 14,500 lb., had passed over the pavement. Numerous transverse cracks had occurred before traffic started and after traffic began triangular breaks appeared at the shoulders on either side of some of the construction joints. There had been also some vertical movement between the corners of slabs where longitudinal and transverse joints met. All broken spots were being repaired so that tests might continue without subjecting adjacent paving to undue shocks because of the broken sections. For the most part the pavement was withstanding the heavy traffic satisfactorily. After the first heavy rainfall on Nov. 22 and 23 threatened breaks developed more rapidly.

Records of slab and subgrade deflections are being compiled by means of rods imbedded in the pavement and subgrade, as shown in the accompanying drawing, and extending down into tunnels underneath the pavement where measurements are made. Four tunnels were put in, each under a different type of pavement. The tunnels are electrically lighted, ventilated by fans and have two-ply plank linings calked and tarred to make them watertight. When special tests are to be made, such as measurements of deflection under static or impact loads, observers in the tunnels make direct readings on dial micrometer gages, which are graduated to thousandths of an inch and can be estimated to ten-thousandths.

For continuous traffic, a recording pen on each of the nine rods marks on a moving paper the deflections of the slab caused by the procession of trucks. The paper is mounted vertically on the side wall, extends the full tunnel length and is rolled continuously from one drum to another by an electric motor. The arrangement of the direct reading and recording devices is such that either or both can be used without interference. The rods used to measure the subgrade deflection come into the tunnel on the opposite side from the pavement rods and movements of the subgrade are measured by direct reading gauges only.

The diagrams, four of which are reproduced on p. 1050, show deflections caused by 5-ton trucks in various positions on the pavement, the position of the truck wheels being indicated on each diagram. The deflections are plotted in two groups and on two different scales, a single representation of the nine rod positions with respect to the pavement serving both groups of records. The line A-B is taken as the center line of the rods and also as a line of zero deflection of the slab. Deflections for 12-mile speeds are plotted in the direction A-B. The position of the front wheels of the truck with respect to the rods is indicated in feet on the extreme right of the diagram. The maximum deflections occur as the rear wheels pass over the rods, i.e., when the front wheels are in position + 13 ft., 4 in., or the length of the wheel-base past the rods.

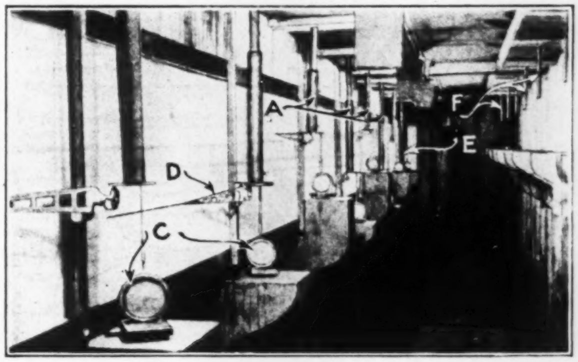
These deflections increased as the traffic continued. That is, with loads, speeds and all conditions, including weather, just the same as at the outset of the test, the maximum deflections increased in the first week of 5-ton truck traffic from 0.019 in. to 0.030 in. The diagrams represent the conditions observed after six days of traffic, when the tonnage over the pavement had reached a total of 326,000 tons. This increased deflection, it is suggested, might have been due to the compacting of the subgrade which would give the slab more freedom of movement within the elastic limit. It was noted that the slow rate of return of the slab to normal position was about the same after long continued traffic as at the beginning of the test.


Hinged cover
5'
2'6"
4'-6"
6"
18'
6"
Inside edge of track
High water level
12"
3'
9 rods, 2'9" and 2'3" c. to c.
A
A
¾" nut and 2" washer in center of slab
Cardboard washer over end of hose
Oiled paper between slab and 4"x4"x¼" plate riveted to rod
Top of pipe
5'
3'4"
1½"
12"
Rubber hose over pipe
26'
Soil deflection rods
Top of tunnel
Slab deflection rods
2" vent pipe
1¼" pipe
Slab deflection rods, ¾" diam.
Subgrade deflection rods, ¾" diam.
2"x12"
2"x8"
4'8"
2'6"
2"x12"
3"x12"
Tar 1"x1"
12"
2"x12"
3"x12" sill
Section and Elevation
Enlarged Detail of Rods
Section A-A

ARRANGEMENT OF RODS AND INSPECTION TUNNEL

In the second group of deflections X-Y is taken as a line of zero deflection of the slab and for each truck position indicated, maximum deflections, as recorded by each of the nine rods, are plotted normal to X-Y. Atmospheric temperatures were recorded during all of the tests to permit of any corrections and comparisons on that basis which might be desirable.

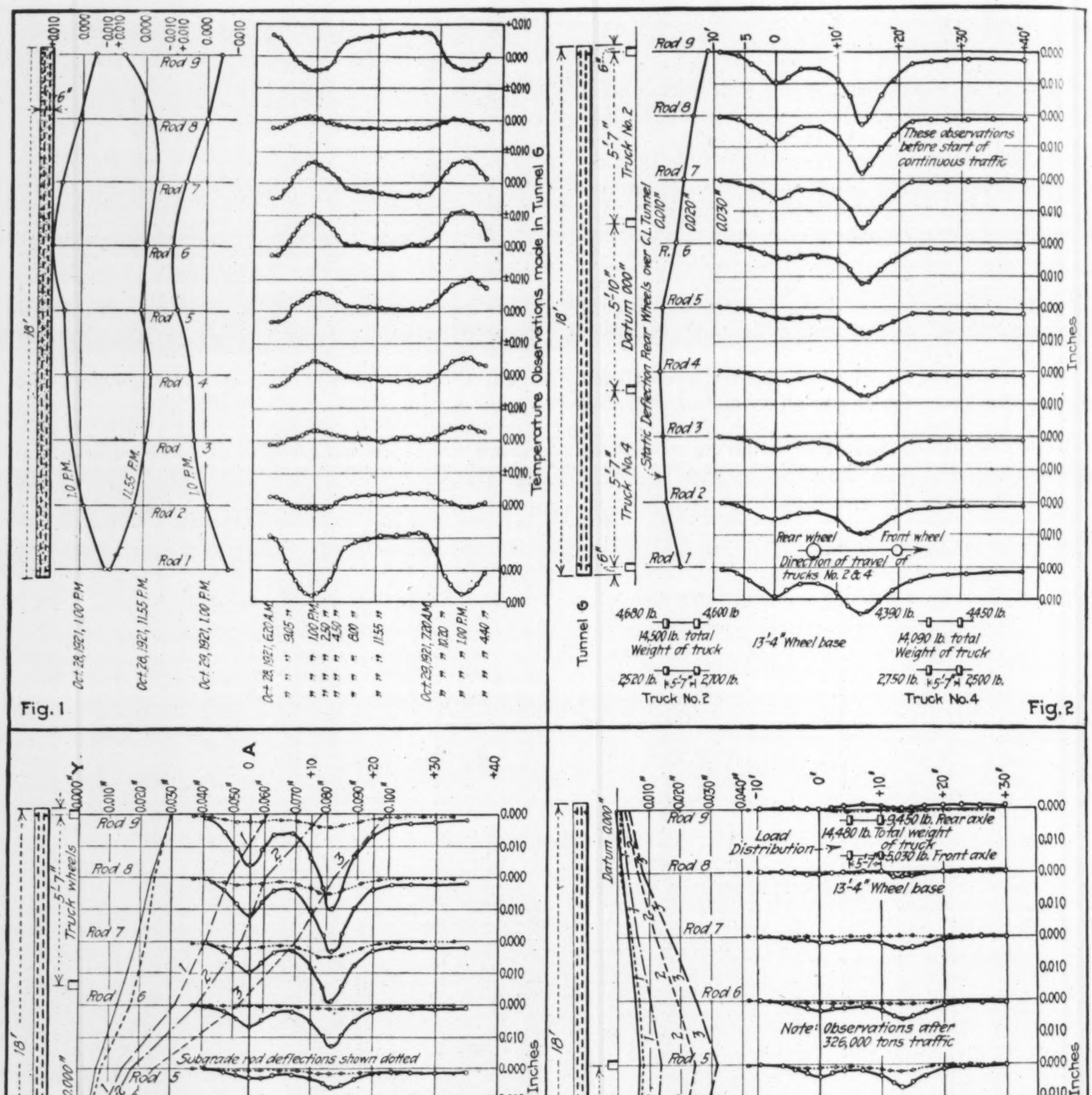
Similar series of plottings are being made in each of the four tunnels, thus giving a comparison of similar results on different types of pavement. Section G, on which the measurements shown in the diagram were made, is 6 in. thick, reinforced on top and bottom with ⅜-in. transverse bars placed on 7½-in. centers. Longitudinal bars, ½ in. in diameter, were used on top and bottom near each edge.



INTERIOR OF INSPECTION TUNNEL SHOWING ARRANGEMENT OF APPARATUS

(A—At lower ends of rods whose tops are imbedded in pavement; B—adjustable sleeve; C—dial for direct readings; D—recording pens for registering deflections on paper; E—one of the two drums on which paper is rolled. F—deflection rods from subgrade.)

The longitudinal waves in the pavement were discovered by making micrometer measurements of the surface elevations along both edges at 6 ft. intervals. This was done before traffic commenced, a series of observations being made daily for several weeks. Measurements were made by means of gages mounted so the surface elevations of the slab could be read with respect to the tops of rods driven into the earth close to the concrete. The waves varied in amplitude up to a maximum of about 1 in., this variation recurring daily at approximately the same time and place. The full



GRAPHICAL RECORDS OF DEFLECTIONS DUE TO TEMPERATURE AND TO IMPACT, STATIC AND MOVING LOADS

Fig. 1—Temperatures. Fig. 2—Static Test, Two Trucks. Figs. 3 and 4—Static, Moving and Impact Tests.

(Note that (1) edge of slab does not return immediately to former position after truck passes close to edge; (2) maximum temperature deflections occur at shoulders; (3) with truck at one edge, opposite edge tilts upward.

range was covered within a period of about 7 hours, which was the time in which atmospheric temperatures varied from least to greatest. The amplitude of the waves was less in the middle of the sections than at the ends where construction joints occurred. This was believed to be due to the reinforcing which would tend

to resist bending within the section where it was continuous.

In practically every case where contraction cracks occurred on sections measured for longitudinal waves, the cracks were found at the crests of waves. In one case where the wave was not exactly at right angles to the center line, as shown by measurements on opposite sides of the slab, a small crack not previously discovered but which extended half way across the pavement to meet a crack already recorded, was found when careful search was made at the crest of the wave.

Temperature readings on the slab were also made in the weeks prior to the beginning of traffic. For this purpose two holes were drilled in the concrete for each temperature station, one ½ in. deep and the other to within ½ in. of the bottom of the slab. A small quantity of mercury was placed in each hole and the tops were closed with corks. To make readings the corks were removed and thermometers were dipped in the mercury for 1 minute, which was found to be long enough to give correct values.

Extensometer measurements were made, chiefly on the center line of the deflection rods, so that the deflections of the slab could later be expressed in terms of stresses. To facilitate accurate readings brass spuds were imbedded in the concrete in pairs, spaced convenient to the range of the instruments to be used. Because of the delicacy of these instruments and in order to avoid the personal equation involved in two separate readings, these measurements were taken first with the truck standing over the spuds and the observer with extensometer under the truck. After the reading the truck moved off, and the instrument was read again without the load.

A notation affecting construction or expansion joints has been made by observers as follows: When the rear wheels of a truck stood close to a construction joint consisting of a ½-in. board used as a transverse header between two successive concrete pours, some deflection was caused in the adjoining slab due to the shear transmitted through the joint. At times of highest temperature enough shear was transmitted to cause the adjoining slab to deflect 90 per cent of the amount found in the loaded slab. At times of minimum temperature the unloaded slab deflected only 10 per cent as much as did the slab carrying the truck.

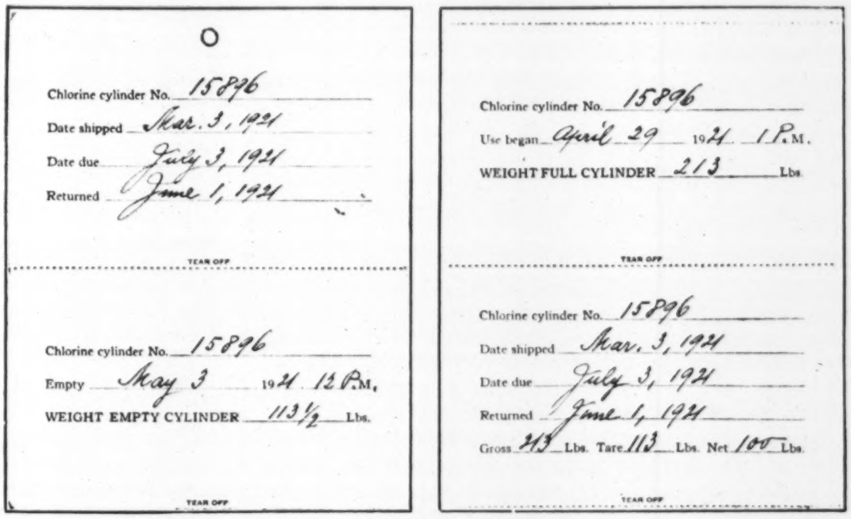
After the first rain laboratory tests on adobe taken from the subgrade under the slab showed the moisture content to have increased to 46 per cent. Simultaneously with this change the slab was found to have a better bearing on the subgrade and the deflections recorded were less.

The tests are being carried on under a co-operative plan, the major cost and the initiative being undertaken by the Columbia Steel Co. and aid being given by the U. S. Bureau of Public Roads, the California Highway Commission, the Automobile Club of Southern California and other interests. The engineering and field work are in the hands of Lloyd Aldrich and John B. Leonard. Harold Hammill has had charge of observations and records.

Keeping Track of Chlorine Cylinders

To keep chlorine cylinders moving in their correct order through the plant of the Indianapolis Water Co., five 3x5-in. cards have been devised. They are made up in a long strip with perforations so that they may be detached and accompany the cylinder or be placed in the various files of the employees who may be concerned with the cylinder as it progresses from the freight station through storage to use and back to empty storage, thence to the freight station for return to the manufacturers. H. E. Jordan, superintendent of filtration, explains the use of the cards as follows:

Card 1, with 2 and 3 attached, is fastened to the cylinder upon arrival at the plant. It remains there until the empty cylinder passes into the freight house for return shipment.



Chlorine cylinder No. 15896
Date shipped Mar. 3, 1921
Date due July 3, 1921
Returned June 1, 1921

TEAR OFF

Chlorine cylinder No. 15896
Empty May 3 1921 12 P.M.
WEIGHT EMPTY CYLINDER 113½ Lbs.

TEAR OFF

Chlorine cylinder No. 15896
Use began April 29 1921 1 P.M.
WEIGHT FULL CYLINDER 213 Lbs.

TEAR OFF

Chlorine cylinder No. 15896
Date shipped Mar. 3, 1921
Date due July 3, 1921
Returned June 1, 1921
Gross 213 Lbs. Tare 113 Lbs. Net 100 Lbs.

TEAR OFF

DETACHABLE CARDS FOR CHLORINE CYLINDERS
On continuous strip; card 1 is upper left; card 2 lower left; card 3, upper right; 4, lower right; card 5, same as card 1.

Card 2 is filled out by the filter operator as soon as the tank is empty when it is sent to the superintendent's office where it is checked against the billed weight and then placed in the empty file, thus providing constantly data as to the number of empties on hand.

Card 3 is filled out by the filter operator when the tank is put into service and immediately sent to the superintendent's office, where it is checked against the billed weight and put into the "in use" file with card number next below.

Card 4 remains in the superintendent's "active" file from date of arrival of the cylinder at the plant until the empty is returned. It is first used for instant reference regarding reserve stock of chlorine. When the cylinder is delivering chlorine it is held in the "in use" file, but when the cylinder is empty the card is placed in the "inactive" file for reference until receipt is obtained from the chlorine manufacturer.

Card 5 is identical with Card 1. It is the purchasing agent's copy and is used by him to check the receipt of full and the return of empty cylinders.

International Division of St. Mary and Milk Rivers

Order of Joint Commission Alloting Waters for Irrigation and Power to United States and Canada—With Comment

AFTER hearings and postponements extending through more than six years the International Joint Commission on Oct. 5 adopted an order and rules for the measurement and apportionment of the St. Mary and Milk rivers and their tributaries in the State of Montana and the province of Alberta and Saskatchewan. The action was taken under and is an interpretation of a provision of the treaty between the United States and Great Britain dated Jan. 11, 1909. The interpretation and rules are in substantial accord with the way the water has been divided and measured by engineers of the U. S. Reclamation and the Canadian Irrigation services, under an interim order, as described in detail by Benjamin F. Jones, hydraulic engineer, United States Geological Survey, in *Engineering News-Record,* Dec. 30, 1920, p. 1277.

Article VI of the treaty provided that the two rivers named should be treated as one stream for irrigation and power purposes and that the waters should be divided equally between the United States and Canada, but that more than half might be taken from one stream and less than half from the other "by either country so as to afford a more beneficial use of each." It was also provided that between April 1 and Oct. 31 the United States should be "entitled to a prior appropriation of 500 sec.-ft. of the waters of the Milk River, or so much of it as constitutes three-fourths of its natural flow;" and that the apportionment of the water should be made jointly by the "reclamation officers of the United States" and the "irrigation officers" of Canada.

After citing the article just abstracted, and stating that the officers just named had been unable to agree as follows:

RULES ON APPORTIONMENT

St. Mary River—I. (a) During the irrigation season when the natural flow of the St. Mary River at the point where it crosses the international boundary is 666 sec.-ft. or less Canada shall be entitled to three-fourths and the United States to one-fourth of such flow.

(b) During the irrigation season when the natural flow of the St. Mary River at the point where it crosses the international boundary is more than 666 sec.-ft. Canada shall be entitled to a prior appropriation of 500 sec.-ft. and the excess over 666 sec.-ft. shall be divided equally between the two countries.

(c) During the non-irrigation season the natural flow of the St. Mary River at the point where it crosses the international boundary shall be divided equally between the two countries.

Milk River—II. (a) During the irrigation season when the natural flow of the Milk River at the point where it crosses the international boundary for the last time (commonly and hereafter called the Eastern Crossing) is 666 sec.-ft. or less the United States shall be entitled to three-fourths and Canada to one-fourth of such natural flow.

(b) During the irrigation season when the natural flow of the Milk River at the Eastern Crossing is more than 666 sec.-ft. the United States shall be entitled to a prior appropriation of 500 sec.-ft. and the excess over 666 sec.ft. shall be divided equally between the two countries.

(c) During the non-irrigation season the natural flow of the Milk River at the Eastern Crossing shall be divided equally between the two countries.

Eastern Tributaries of Milk River—III. The natural flow of the Eastern (otherwise known as the Saskatchewan or Northern) tributaries of the Milk River at the points where they cross the international boundary shall be divided equally between the two countries.

Waters Not Naturally Crossing the Boundary—IV. Each country shall be apportioned such waters of the said rivers and of any tributaries thereof as rise in that country but do not naturally flow across the international boundary.

V. For the purpose of carrying out the apportionment directed in I, II and III hereof the said reclamation and irrigation officers shall jointly take steps

(a) to ascertain and keep a daily record of the natural flow of the St. Mary River at the international boundary, of the Milk River at the Eastern Crossing, and of the eastern tributaries of the Milk River at the international boundary by measurement in each case: (1) At the gaging station at the international boundary; (2) at all places where any of the water which would naturally flow across the international boundary at that particular point are diverted in either country prior to such crossing; (3) at all places where any of the waters which would naturally flow across the international boundary at that particular point are stored, or the natural flow thereof increased or decreased prior to such crossing.

(b) To fix the amount of water to which each country is entitled in each case by applying the directions contained in paragraphs 1, 2 and 3 thereof to the total amount of the natural flow so ascertained in each case.

(c) To communicate the amount so fixed to all parties interested so that the apportionment of the said waters may be fully carried out by both countries in accordance with the said directions.

GAGINGS REQUIRED

VI. Each country may receive its share of the said waters as so fixed at such point or points as it may desire. A gaging station shall be established and maintained by the reclamation or irrigation officers of the country in which any diversion, storage, increase or decrease of the natural flow shall be made at every point where such diversion, storage, increase or decrease takes place.

VII. International gaging stations shall be maintained at the following points: St. Mary River near international boundary; the North Branch of Milk River near international boundary; the South Branch of Milk River near International Boundary; Milk River at Eastern Crossing; Lodge Creek, Battle Creek, and Frenchman River, near international boundary and gaging stations shall be established and maintained at such other points as the commission may from time to time approve.

VIII. The said reclamation and irrigation officers are hereby further authorized and directed:

(a) To make such additional measurements and to take such further and other steps as may be necessary or advisable in order to insure the apportionment of the said waters in accordance with the directions herein set forth.

(b) To operate the irrigation works of either country in such a manner as to facilitate the use by the other country of its share of the said waters and subject hereto to secure to the two countries the greatest beneficial use thereof.

(c) To report to the commission the measurements made at all international and other gaging stations established pursuant to this order.

IX. In the event of any disagreement in respect to any matter or thing to be done under this order the said reclamation and irrigation officers shall report to the commission, setting forth fully the points of difference and the facts relating thereto.

We are informed by Mr. Jones that the only statement or figures in his article mentioned above that would be changed by the decision are in the table on p. 1279, and are that "Canada's share on Aug. 4 would be 502 instead of 500 sec.ft. and her deficiency 22 instead of 20 sec.-ft. on that date."

F. H. Newell, now consulting engineer, United States Reclamation Service, who served as one of the original negotiators in drafting the treaty with Great Britain, has sent *Engineering News-Record* some comment on the order that promises to be of general interest. After citing the treaty provisions giving Canada 500 sec.-ft. priority in the St. Mary River during the irrigation season and the United States a like priority in the Milk River, and noting that because of natural conditions the Milk River priority granted this country is "relatively insignificant compared with that of Canada's priority in St. Mary River," Mr. Newell writes:

> There is not enough water in either or both streams to supply all of the dry lands which may be economically irrigated. The growth and future prosperity of northern Montana and southern Alberta are tied up in the efficient use of the waters of these streams. A larger beneficial use can be secured by storing the waters of St. Mary River in Montana, in the natural reservoir sites in or adjacent to the Glacier National Park. It has been found possible to carry some of this water across the low divide into the Milk River drainage, supplementing the low water flow of this stream. Waters thus diverted in the United States flow, however, into Canada and then after following along north of the boundary for about 200 miles they return to the United States.
>
> It would seem as though little difference of opinion could arise as to the methods of measurement and apportionment. The original draft of the treaty was to the effect that apportionment should be made of the waters at the international boundary. The specific designation was, however, left out of the treaty as finally signed for the reason, as asserted by the Americans, that the treaty referred wholly to such waters. The Canadians, however, attached great significance to this omission—of what the Americans regarded as surplusage—and contended that at the last moment the object of the treaty was changed so that the entire flow of both rivers should be taken into consideration, including tributaries of Milk River, which, coming from the south, have never been considered as international waters.
>
> Moreover, the Canadians contended that the prior rights should first be measured and then the remaining waters apportioned equally. This also was considered by the Americans as practically rewriting the object of the treaty as regards equality of division, since the granting to the Canadians of a priority which was not to be measured as part of equality practically gave them the lion's share of the available supply.
>
> The matter was argued by learned counsel at St. Paul in May, 1915, again at Detroit in May, 1917, and for the third time in Ottawa in May, 1920. By that time the members of the commission individually seemed to have got into a state of mind where agreement was impossible.
>
> An interesting point to engineers is that when deadlock seemed certain the commission resorted to the simple expedient of declining to hear further argument, and instead of this decided to go upon the ground in person and see for themselves something of the situation, listening not to further legal discussion but finding out for themselves, through talking with the people of the country and the engineers, what are the actual facts and what are the relative merits of the various contentions made.
>
> Accordingly the commission invited counsel to remain away and listened to the informal statements of fact made by irrigators in the Milk River Valley in Montana and in the St. Mary area in Canada. The result was a brushing aside of technicalities and an immediate reaching of an understanding.
>
> It required only a few minutes' talk on the part of well informed farmers and ranchmen to show that the proposed consideration of the southern tributaries of Milk River in the proposed equal division was a practical absurdity. These streams shrink soon after leaving the high lands and cannot and should not be considered as part of a dependable water supply.
>
> In the same way the contention of Canada for a priority in St. Mary River was emphasized in the minds of the commission by the plain, simple statements of men living on the ground and using the water.
>
> The result is that although Canada may get theoretically a larger proportion of the available supply of St. Mary River, yet the people of the United States will probably receive all that can be economically stored for their use. Each party can claim a substantial victory. The ground is now clear for the development of plans for water storage in Montana for the benefit of lands in Alberta. . . .

After again remarking on the more than six years spent in discussing this problem without reaching a decision, and noting that a compromise was finally reached only after the members of the commission had become convinced that "it would be little short of a calamity not to agree," Mr. Newell says in conclusion:

> If it should be said that it was impossible for six English speaking people to interpret and apply the terms of a treaty written in plain English, then it might be claimed with some show of reason that it would be impossible to carry out other treaties between nations speaking different languages. In one sense the whole world was interested in showing that two nations living side by side can agree on waters flowing across the boundary and on other matters of vital importance to their citizens.

Two days after the above order was handed down the Commission recommended to the respective governments that both countries unite in building a storage reservoir at St. Mary's Lakes in Montana but that the United States proceed with the construction of the proposed Chain-of-Lakes reservoir in Montana and Canada with the proposed Verdigris Coulee reservoir in Alberta.

Kings River Water-Right Litigation Halted by Engineer's Plan

CLAIMANTS to water from Kings River, California, have agreed on a program drawn up by a committee of engineers under which all litigation will stop for the 1922 season and a plan be devised for utilizing more fully than heretofore the available waters of the river. The following information on the subject has been supplied to *Engineering News-Record* by J. B. Lippincott, consulting engineer, Los Angeles:

> Kings River in California supplies a fair water-right to about 800,000 acres of high-grade land and a very defective water supply to about 400,000 acres more. Considering the crop values it is probably the most important irrigation stream in America. The water is distributed by twenty-two different canal systems. There has been a chronic condition of litigation over the division of this water for the past thirty years. An effort is being made to build a good storage reservoir and power plant for the purpose of conserving flood water and pumping from underground supplies so as to furnish an adequate supply for the whole 1,200,000 acres of land. A law was passed at the last session of the California legislature providing a legal method for irrigation districts, mutual water companies and privately owned canals in a given drainage basin to co-operate for such a purpose. Preliminary steps have been taken to proceed with the formation of this super-district.
>
> In the meantime old litigation over the division of the water of the river was revived by a certain decision of the State Supreme Court and the stage was set for a renewal of the legal fight between a number of these canal companies which would interfere with, if not entirely prevent, a constructive program. A committee of engineers appointed for the super-district, composed in part of Louis Hill, George L. Swendsen and J. B. Lippincott, proposed a plan to avoid litigation and to proceed with the engineering studies looking toward construction. They proposed that the California State Water Commission, now known as the Division of Water Rights, should be called upon to prepare,

out of court, a temporary schedule for the division of the water of Kings River for the year 1922 and that all parties using water from the river should agree to accept this schedule and to permit the officers of the state to take charge of their headgates and operate them for this year. At the end of the year any one of the canal companies was given the right to withdraw from the agreement if it desired, or to petition the State Water Commission to revise the agreement for the following year. All claimants to water from Kings River have signed an agreement to desist from litigation over the water of Kings River until after the year 1922. In the meantime, the engineering committee is to proceed with its investigations and estimates, and it is believed that a plan will be developed whereby an adequate water supply will be maintained for the 1,200,000 acres which, if demonstrated, will largely relieve the tension now existing between the canal companies over the division of the water. If the program can be carried out to a successful conclusion, it will be a distinct accomplishment of a constructive nature and an avoidance of litigation which almost invariably has been destructive in its effect on irrigation development in the arid region.

London's Rapid Transit Mail Distribution System

Construction Now Going on—Automatic Electric Trains to be Transporting Units—Twelve Post Offices to be Linked

(LONDON CORRESPONDENCE)

(The project for mail distribution in London herein described is similar to the automatic electric system of freight transportation proposed for the New York Metropolitan District by the New York-New Jersey Port and Harbor Development Commission, and included in the "Comprehensive Plan" of the Port of New York Authority. The commission's plan was made public Jan. 24, 1921, and a resume of its general features was contained in "Engineering News-Record" of Jan, 27, 1921, p. 183.—Editor.)

IN ORDER to speed up the London mail services an underground electrically-operated railway is being built which will ultimately link up the chief post offices and trunk-line depots in the London district. The project is indicated on the accompanying map which shows both the present construction and the ultimate development. The plan has been worked out by the engineering department of the London post office and Mr. Dalrymple-Hay. Post office engineers are responsible for the electrical equipment and Mr. Dalrmyple-Hay is taking charge of the tunnel construction.

As shown on the map the Western Central District post office, the Mount Pleasant sorting office and the general post office at King Edward building will constitute important junctions when the extensions are undertaken. Between the stations shown the railway will consist of two lines of 2-ft. gage track, one eastbound and the other westbound, and each contained in a single tube of an inside diameter of 9 ft.

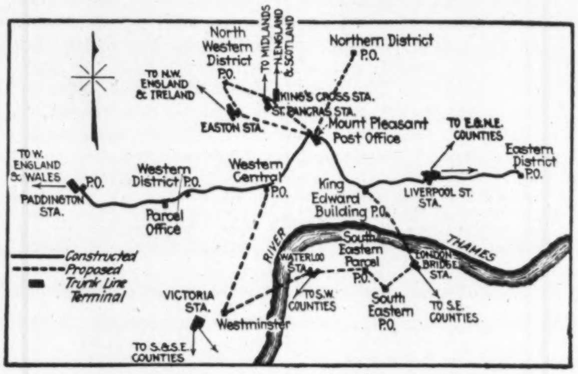
The trains running over this system will be operated without drivers on the remote-control system. It is proposed by the post office engineers to operate the trains by means of three types of electric current: high speed (HS), intermediate speed (IS); and low speed (LS). When the train is running between stations HS current will be applied. At the approach to a station the cars will pass over a short gap in the conductor rails and brakes will be applied. These brakes will be released electrically when the train is taking up the current and applied when the train is not. The next section after this of conductor rail will be normally dead and will be constructed of such a length as to allow the train to come to rest, the brake still remaining in operation.

If it is required to stop a car at a station LS current will be applied to this brake section and the train will move to the station platform where it will finally stop by the application of the brakes as it reaches that section of conducting rails rendered dead for its reception.

When a train is to skip a station IS current will be applied to the brake section and the train will pass through the station at this speed, passing over a short gap in the conductor rails and onto those sections of the line energized by HS current.

When it is possible to accept without delay a stopping train or an express the braking section or a portion of this line will be supplied with IS or LS current before the train reaches the station, in which case the train would merely be slowed up to a speed commensurate with the current supplied and would either proceed to the platform or skip the station.

Trains will be started by energizing the rails of the subsection on which they are standing with IS current if it is run on the main line or with HS if it is to be used for shunting purposes.



LONDON DISTRICT SHOWING RAPID TRANSIT MAIL DISTRIBUTING PLAN

Cars will be moved into sidings and stopped at certain sections in the same manner as that employed to stop them at station platforms, and a device will be supplied for automatically reversing the connections of the car motors so that they may be easily coupled up to form trains of two or more cars. When thus connected the shoes of the rear car only will pick up the current, but all of the motors will be doing part of the propulsion.

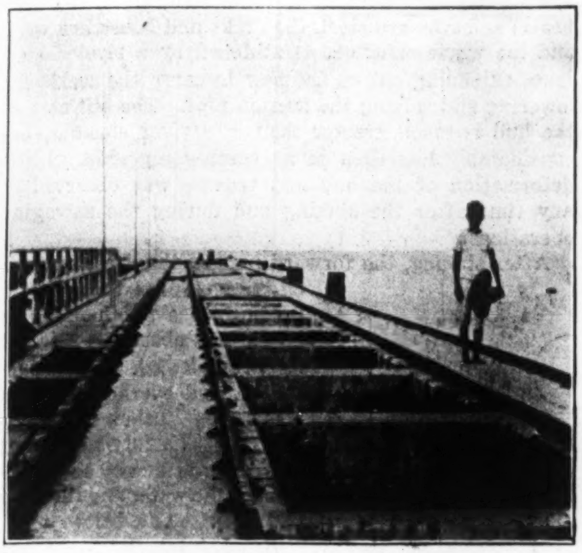
It is not intended that the control of the cars as they stop at, or pass through, a station need the continuous attention of switchmen. The position and destination of each train will be indicated to the switchman who will, with levers, set the line points for any specified route and will energize the conductor rail sections with the current needed. The operation of the line points will be interlocked with the current application and a complete interlocking system will be in force between the different routes.

Between the stations the conductor rail will be divided into sections, and while running between stations and before coming under the control of the switchman, the train will itself render each section dead as it leaves it and will energize it again upon entering the next section. This is provided to secure a dead-rail section between adjacent trains.

Open Pier Deck To Resist Storms

By H. H. Braun
Engineer-Constructor, Manila, P. I.

In MANILA BAY there is a concrete pier, built in an exposed location, on which it was necessary to evolve a special design of deck to resist the heavy seas. When a typhoon escapes and runs amuck over the China Sea, as frequently happens here during the months of July and August, the waves roll in at the site to buffet the pier with incredible violence.



LOOKING ALONG THE PIER FLOOR

The pier, which carries a double-track railway, is a reinforced-concrete slab and girder deck, founded on precast concrete piles. It is built in the form of an L. A stem 400 ft. long by 21 ft. wide leads out to the pier head which is 160 x 30 ft. The water is 24 ft. deep at low tide with the deck 12 ft. higher. The bottom is good firm sand where satisfactory penetration was obtained. Batter piles were driven for side bracing.

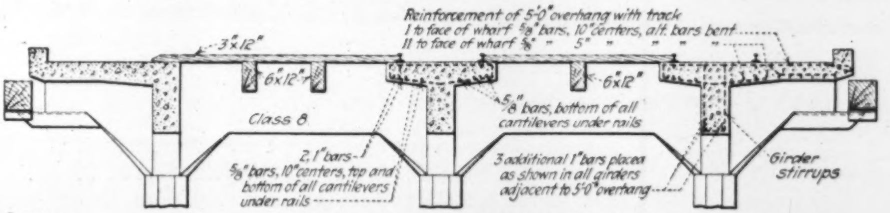
It was not deemed safe to build a solid deck. Accordingly the piles were spaced to center under the center line of each track, and are connected by heavy longitudinal T-beams, the head of each being just wide enough to carry its respective track. The longitudinal beams connect at deck level with the heavy cross girder pile caps, the space between the beams being left open The head of the pier is widened to a three pile bent, as shown in the detail drawings, the deck being left entirely open in a similar manner.

The concrete work then, practically consists of a modified trestle, with flat-slab extensions along each edge. Joists, 6 x 12 in., are placed lengthwise of these openings, supported by proper metal hangers at the pile caps. Over the openings is placed a decking of 3 x 12-in. plank, which is free to lift off and go overboard in case of severe storm.

Where the stem of the pier crosses the breakers it is peculiarly liable to damage. It was necessary to protect the shore by heavy riprap upon which the waves break and surge high above the pier with savage violence. On this section the flat slab was omitted entirely on one side, and the walkway slab on the other side provided with longitudinal openings 9 ft. x 1 ft. 6 in. wide which are covered with 3 x 12-in. panels.

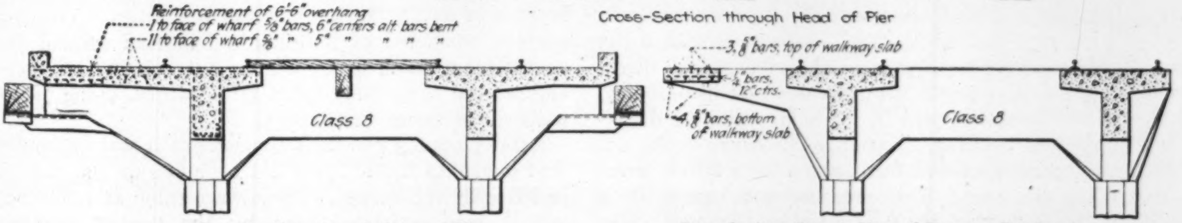
The wisdom of this design has been amply demonstrated through the eight years it has firmly withstood the destructive typhoons which sometimes sweep in across the China Sea. The writer has seen many waves strike this pier and throw tons of water far above the deck. The effect under a solid deck would probably be disastrous. Many times the wooden decking has been wholly or partly heaved up and flung far overboard. To replace this decking is, of course, expensive but in ordinary rough waters such as obtain on the coasts of the United States, it would be carried away only in very exceptional storms.

It is obvious that this design would be useless where deck loads must remain on the pier during storms. It is a satisfactory construction for wharves built in exposed places, such as pleasure piers, or others where it is practicable to remove the deck load during danger.



Reinforcement of 5'-0" overhang with track
I to face of wharf 5/8" bars, 10" centers, alt. bars bent
II to face of wharf 5/8" " 5" " " " "
3"x12"
6"x12"
6"x12"
Class 8
5/8" bars, bottom of all cantilevers under rails
2, 1" bars
5/8" bars, 10" centers, top and bottom of all cantilevers under rails
3 additional 1" bars placed as shown in all girders adjacent to 5'-0" overhang
Girder stirrups

Cross-Section through Head of Pier



Reinforcement of 6'-6" overhang
I to face of wharf 5/8" bars, 6" centers alt. bars bent
II to face of wharf 5/8" " 5" " " " "
Class 8
3, 5/8" bars, top of walkway slab
1/4" bars, 12" ctrs.
4, 5/8" bars, bottom of walkway slab
Class 8

Cross-Section through Stem of Pier

Cross-Section through Stem of Pier over Breaker Line, showing One Side Slab omitted, and Walkway open.

DETAILS OF OPEN FLOOR PIER IN MANILA P. I.

Russia's Skilled Workers

According to a survey made by the American Relief Administration among Russia's population of approximately 131,000,000, there are 4,675,400 men who are expert in mechanical and other branches of the various trades. Here are a few figures compiled by the relief workers in Russia: Electrical workers, 2,250,000; railway workers and employees, 1,215,000; transporters, 315,000; rural, 394,000, and miscellaneous, 501,400.

Sunken Dredge Raised by Jacking From Dry Dock Pontoons

Four Pontoons Lying on the Quarters Swing Hull in Rope Slings—Steel Truss Stiffens Dredge Against Damage

By James H. Polhemus
Chief Engineer, Port of Portland, Portland, Ore.

USING four sectional dry-dock pontoons, a dredge, displacing 1,600 tons and belonging to the Port of Portland Commission, Oregon, which had sunk in 25 to 40 ft. of water in the Willamette River, was raised in 16 hours after the salvaging equipment was in place. The entire operation of installing the equipment and raising the dredge took ten days. Some of the details of the operation were novel and all were devised and carried out by the Port engineers with available equipment. The cost of the operation was $40,000.

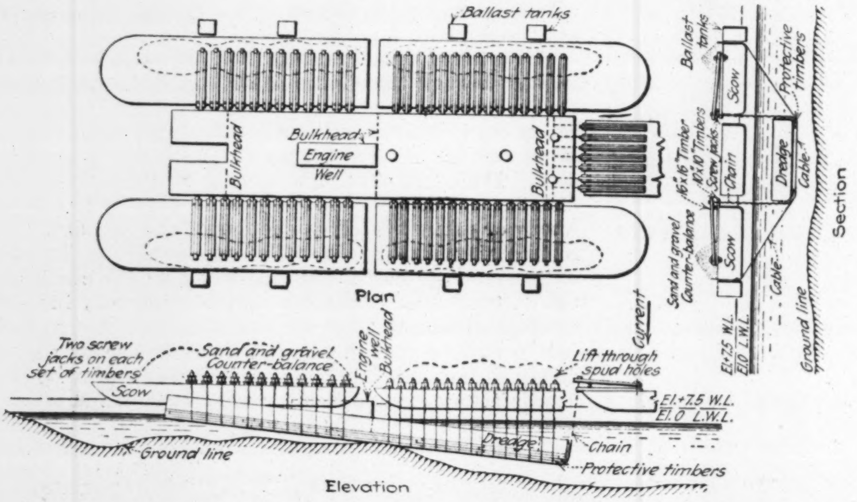


FIG. 1. ORIGINAL PLAN OF RAISING BY BARGES, JACKS AND SLINGS

At the time of the accident, March 4, 1921, the dredge was excavating gravel and pumping through 1,060 ft. of floating pipe and 1,520 ft. of shore pipe, with a lift of 18½ ft. above the surface of the river. The direct cause of the sinking was a break in a cast-iron 45-deg. bend in the discharge pipe in the hold, while the dredging pump was running. Excessive pressure broke out bodily an opening of oval form, about 15 x 28 in. measured along the axes. This pressure was caused by a plug at the far end of the floating pipe. Enough water had leaked out of the pipe during the time that the pump was previously shut down to permit the water in the pipe to gain momentum when the pump was started and the sudden check of this moving water caused hammer sufficient to break the pipe. To prevent plugs in the pipe line the invariable practice had been to pump clear water just before stopping the pump. For some unexplainable reason in this instance this method had failed to produce the desired effect.

Just previous to the accident, manganese steel bends had been ordered and were to be installed. The Port's more recently constructed dredges are so equipped and also have hydraulically operated gate valves on the suction pipe at the entrance into the hold. The bend which broke is probably the one most subject to wear and is inspected and replaced at regular intervals, but probably, due to the unusually eroding character of the material, the wear had been greatly in excess of the average.

Conditions of the Accident.—The hull of the dredge is 34 x 206 ft. x 10 ft. 6 in. deep with a displacement of 1,600 tons. The skin is of $\frac{5}{16}$-in. steel plate, the deck beams and ribs are steel, the decks and house are wood and the whole structure is stiffened by a riveted steel truss extending out on the bow to carry the tackle for lowering and raising the suction pipe. The stiffness of the hull is much greater than in a river steamer, but considerably less than in an ocean-going ship. Little deformation of the hull and trusses was observed at any time after the sinking and during the salvaging operations.

After sinking, the forward part of the dredge rested on the level area which it had dredged to a depth of about 25 ft., and about one-third of its after length was unsupported, and overhung ground about 40 ft. below the water surface. The forward end of the main deck was about the level of the water and the after end about 10 ft. below.

Flood Upsets Original Plans.—Various plans for salvaging were considered and discarded. Cofferdamming was not feasible on account of the depth of water at the stern of the dredge and because of the expected spring freshet. Its great cost also caused other methods to be preferred. Lifting by the aid of the tides was not possible as the variation of tidal heights was not ever 1 ft. Construction of a bulkhead extending all around the outer line of the main deck and raising by pumping out was also tentatively planned but was discarded because of doubt whether the hull was intact. The plan adopted consisted of building a bulkhead around the engine-room hatch and pumping out this compartment and, at the same time raising by barges, using jacks, with slings under the dredge.

After pumping out the compartment it was estimated that buoyancy would leave not over 600 or 800 tons to be lifted by the barges. These were rated at 1,000 tons and it was estimated that by the use of counterweights each would lift 250 tons at its edge where the slings would be attached. Five barges were used as shown by Fig. 1.

As indicated, the barges were equipped with timbers extending across-deck, fastened down at one end and overhanging about 2 ft. on the side nearest the dredge. House-moving jacks were placed as shown to lift the ends of the slings under the dredge. The slings consisted of wire ropes to which chains were attached at the ends for use with the lifting gear. At the turn of the bilge of the hull, wooden pads 6 in. thick were fastened under the slings. The general plan was to raise the dredge so that it could be moved into shallow water and be beached and if the main deck could not

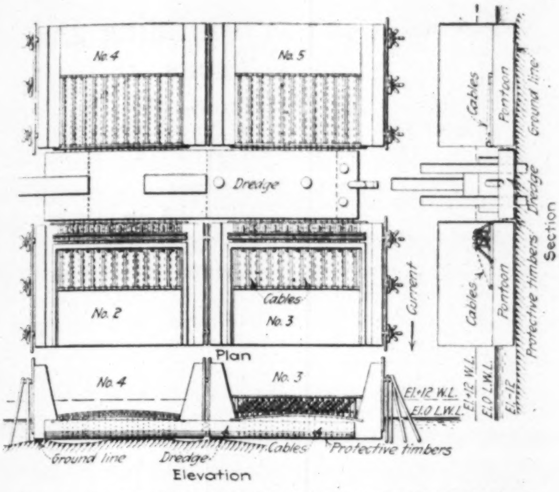

No. 4
No. 5
Dredge
No. 2
Cables
No. 3
Current
Plan
Cables
Pontoon
Ground line
Dredge
Section
Cables
Pontoon
Protective timbers
No. 4
No. 3
El. +12 W.L.
El. 0 L.W.L.
El. +12 W.L.
El. 0 L.W.L.
El. -12
Cables
Protective timbers
Ground line
Dredge
Elevation

FIG. 2. SUCCESSFUL PLAN OF RAISING BY DRY-DOCK PONTOONS

be brought above the water by this means, at least the compartment could be bulkheaded and pumped out. The method of raising with the house-moving jacks was to lift a small distance and hold the distance gained by a pin through a link of the chain or by a U-bar holding against a link. Five days' time was taken in preparation for raising by this means.

The barges were in place and a heavy strain had been placed on the slings and the operation appeared to be on the eve of success, when there was an unexpected and rapid rise in the river. The total rise was about 10 ft. In one night the rise was so great as to cause the barges to careen and require the chains to be unfastened to prevent overturning or shifting the ballast. A freshet of this height was not to be expected and seldom has occurred at this date so it had not been prepared for in the plans for salvaging.

When the barges were cut loose the forward end of the dredge sank and the bow compartment filled, leaving the keel almost level or about 3 ft. down by the stern which hung unsupported for a distance of about 90 ft.

Successful Salvaging Operation.—With the failure of the first plan, it was decided to make use of four of the five sectional pontoons composing the port's 10,000-ton dry dock. These pontoons are 80 x 112 ft. over all and 80 x 82 ft. on deck, with wings extending about 40 ft. above the deck. To permit the pontoons to rest on an even bottom at, or lower than, the ground supporting the sunken dredge, the bottom of the river was dredged on both sides of the hull to an elevation of 14 ft. below low water. Pile clusters and connecting wales were placed as shown by Fig. 2 to hold the pontoons in position, at the same time wire rope slings were placed under the dredge, by pulling and sawing the bights from both bow and stern. Pads of 6-in. lumber were placed under the slings at the turn of the bilge as in the first operation. In the meantime the timber structures, Fig. 3, for attaching the wire rope slings to the pontoons were being erected at the port's dry dock and repair plant.

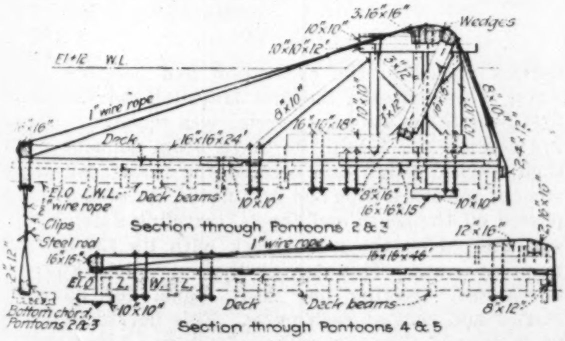

3, 16"x16"
Wedges
10"x10"
10"x10"x12'
El +12 W.L.
3"x12"
1" wire rope
8"x10"
10"x10"
3"x12"
16"x8"
10"x10"
8"x10"
16"x16"
16"x16"x18'
Deck
16"x16"x24'
2-4"x12"
El. 0 L.W.L.
½" wire rope
Deck beams
10"x10"
8"x16"
16"x16"x15'
10"x10"
Clips
Section through Pontoons 2 & 3
12"x16"
2, 16"x16"
Steel rod
1" wire rope
16"x16"
16"x16"x46'
2"x12"
El. 0 L.W.L.
Bottom chord, Pontoons 2 & 3
10"x10"
Deck
Deck beams
8"x12"
Section through Pontoons 4 & 5

FIG. 3. SUPPORTS FOR SLINGS, ERECTED ON PONTOONS

For the pontoons (4 and 5, Fig. 2) placed upstream from the dredge, the structures consisted of cross-sills to hold the loops of wire rope slings, which were held in place by sills attached to the deck beams of the pontoons by pairs of screw bolts passing through 1-in. steel plates against the lower side of the deck beams. At the end of the pontoon next to the dredge a timber was placed to protect the pontoon and to distribute the pressure transmitted by the wire ropes.

On the pontoons, 2 and 3, on the downstream side, heavy trusses were constructed extending across the length of the deck and to an elevation of 14 ft. above deck. The design of these trusses provided for: (1) Distribution of the strains on the deck of the pontoons; (2) possible concentration of loads at one point and movement of trusses in the direction of their length and change in direction of strains. An inclined strut was placed at the angle of the resultant pull of the wire ropes and additional inclined struts were placed to take strains which might occur otherwise than in the direction computed. The vertical resultant of the inclined pull of the wire ropes on the timber, back of the truss, was considered to require the wire rope ties under the deck connecting the upper and lower chords of the pontoon trusses.

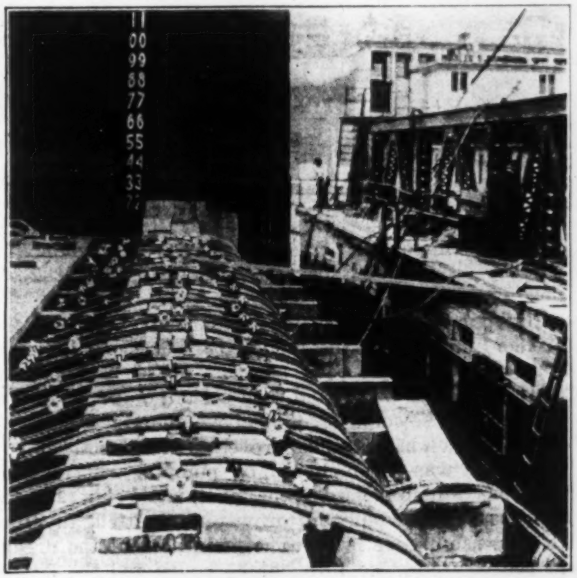

11
00
99
88
77
66
55
44
33

FIG. 4. TENSION ON SLINGS EQUALIZED BY WEDGING

When the pontoons were towed into position the wire rope slings were attached to the upstream pontoons and these pontoons were sunk. One end of the double slings was then carried around the back timber and both ends brought to the top of the truss and the downstream pontoons were sunk. Final adjustments of the wire rope slings consisted in pulling taut with a 8½ x 10-in. donkey engine and attaching clips. When all the ropes were brought up tight, the pontoons were partly pumped out so as to raise them about one foot. They were then sunk in place and the resulting slack was taken up by driving wedges under the wire ropes on the top timbers of the trusses, Fig. 4, thus equalizing the strain on all the wires. Not less than five malleable iron clips were used on each connection. The height of the trusses was such as to permit all final connections and adjustments to be made above water.

The weight of the dredge was estimated at 1,600 tons, as computed by displacement afloat. The number of slings of 1-in. wire rope was 112, the average working strain of wire rope thus being about 7 tons. A strain of double this amount could be carried. The total lifting capacity of each pontoon was estimated at 2,200 tons.

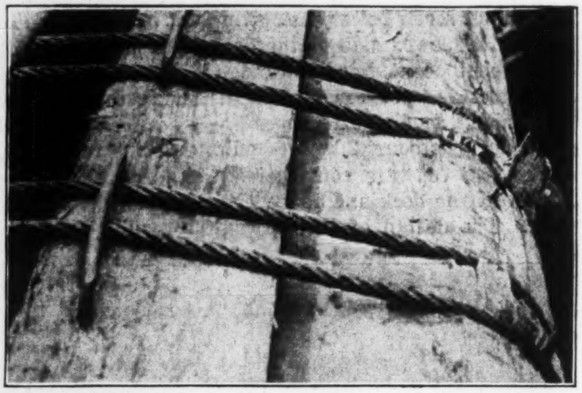


FIG. 5. SLINGS UNDER STRESS BITE INTO SUPPORTING TIMBERS

By pumping out the compartments nearest the dredge and keeping the farther compartments filled, it was computed that each pontoon would lift approximately 400 tons and would then raise the dredge so that its main deck would be well above the water surface, both of which assumptions proved to be correct.

Raising was accomplished by pumping out all four pontoons simultaneously, the pumping being stopped at times on one pontoon, or water admitted, in order to keep the dredge level. The main deck of the dredge at the bow emerged in about 3½ hours and the dredge was finally floated at its normal draft about 16 hours after operations began. About ten days were consumed from time of beginning operations until they were successfully completed. Examination of the hull and working parts of the salvaged dredge showed little damage by the sinking and subsequent days of immersion.

The entire salvaging operation was conducted by the Port's regular organization under the direction of James H. Polhemus, general manager and chief engineer. The many engineering details, the computations and the preparation of the pontoons were carried out under the direct supervision of assistant engineer, H. L. Gilbert. The Port's Repair and Dry Dock Department under James Healy, master mechanic, did all of the field work and was directly responsible for the operation of raising. Much credit is due these men and the dockmaster, J. A. Stephens, who directed the actual operation of raising.

Erection of Steel Building and 150-Ft. Truss

Special Methods for Huge Truss—Derrick on First Floor with Long Boom Places Framing for Six Stories and Roof

By W. J. Howard
Engineer, Kelly-Atkinson Construction Co., Chicago

ERECTING THE LARGEST TRUSS ever used in a building was the major problem in the erection of the structural steel framing of the U. S. Mail Terminal at Chicago. The truss is of 150-ft. span and weighs 365 tons complete, with field rivets. All material for the structure was placed by two derricks traveling on the center line of the building at the first floor level. The building, which is a unit of the Union Station project, is 792 x 72 ft., paralleling the approach tracks and with its ends fronting on Van Buren and Harrison Sts. (See *Engineering News-Record,* Dec. 15, 1921.) It comprises a track or train floor, six upper floors and roof, with a total of 7,650 tons of structural steel, of which 2,800 tons is in the track floor and first floor.

Owing to the very limited space available, a material storage yard was established about half a mile south of the site. All steel was unloaded, checked and sorted at this yard, and then reloaded on cars for movement to the work as required for erection. This yard handling was done by derrick cars.

Two steel stiff-leg derricks mounted on platforms traveling on a single track of 36 ft. 7½ in. gage on the first floor framing performed practically all the erection work. The first two-panel section, 56 ft. in all, of the south end of the building up to and including the first floor, was erected by a stationary 15-ton wood stiff-leg derrick placed in the excavation and pointing south. After it had erected the first traveling derrick on the first floor this stationary derrick was removed. Traveling derrick No. 1, with its 90-ft. boom pointing north, then worked north and erected the remainder of the steel of the track floor and first floor. As soon as it had passed off the south end panels, traveling derrick No. 2 was erected on the same track with its 130-ft. boom pointing south. This derrick then moved backward or northward, erecting one 28-ft. panel for all upper stories and roof at each move. This derrick was kept 28 ft. beyond the nearest line of columns being erected. Fig. 1 shows the steel erected on the truss near the

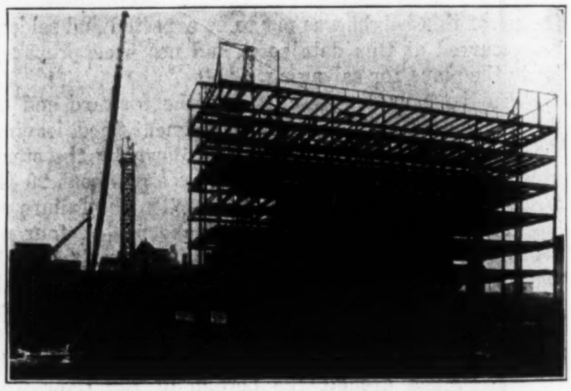


FIG. 1. ERECTION OF STEEL TRUSS AND SUPERSTRUCTURE OF U. S. MAIL TERMINAL; CHICAGO

south end of the building, with the tall derrick at the left.

Traveler No. 1 has completed its work and has been removed. When No. 2 reaches Van Buren St. to finish the end of the building, it probably will be run out into the street, as this thoroughfare is now closed to traffic during the erection of the new approach to the Van Buren St. bridge. If the street should have been opened at that time, the erection scheme shown in Fig. 2 will be used. The derrick will be dismantled within the building line by a 75-ft. wood boom placed in a special swivel boom seat casting which will be attached to a column on one side of the center line of the building, at about the third-floor level, utilizing the column as a mast. This boom will then erect the steel for the remaining end panels of the building.

A special problem in erection was presented by the 150-ft. truss, with its two 37-ton columns. This truss is in the west wall, spanning an opening for a cross-over track which leads into the building. It is 25 ft. deep c. to c. of chords, with its bottom chord below the first floor and its top chord above the second floor. As shown in Fig. 3, when the two columns are held at base and track floor, the bottom chord draws each column $\frac{5}{16}$-in. inward while the top chord pushes it $\frac{5}{16}$-in. outward from the vertical center line. Thus the combined movement is $\frac{5}{8}$-in. in each direction.

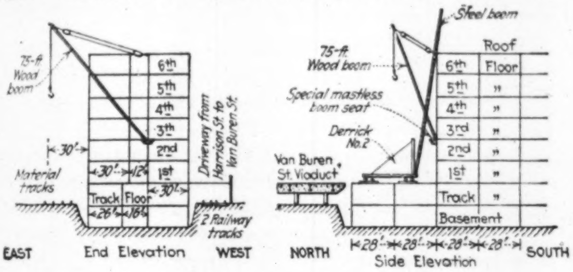


FIG. 2. ERECTION SCHEME FOR END PANELS OF BUILDING

It was proposed originally to place $\frac{3}{4}$-in. pins in the top and bottom chord connections to the columns, following these with pins increasing by $\frac{1}{16}$ in. in diameter until the connection was made finally with $1\frac{3}{64}$-in. pins, after which the rivets could be placed in the $1\frac{1}{16}$-in. reamed holes. This plan was simplified, however, by the unusually favorable conditions of frosty mornings and hot afternoons, which made it possible to take advantage of the expansion and contraction of the steel. Thus the $\frac{3}{4}$-in. pins in the bottom chord connections were replaced with $1\frac{3}{64}$-in. pins on a hot afternoon, and on the following cool morning $1\frac{3}{64}$-in. pins were placed in the top chord connection.

With the $1\frac{3}{64}$-in. pins replacing the $\frac{3}{4}$-in. pins in the bottom chord during a hot afternoon, the only effect of the stresses due to contraction and expansion on the following cold morning would be to bend the columns, which was what we were trying to do. The column was free to move at the bottom chord line, as it is connected to the frame of the building by slotted expansion holes, and probably it did lean away from the truss due to expansion of the bottom chord. When the full load is applied and the bottom chord lengthens either the columns will move or the chord will be crushed or the rivets attaching the chord to the columns will be sheared. It is to be presumed that the designers took this force into account.

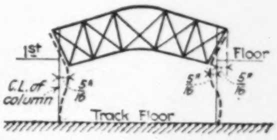


FIG. 3. CAMBER EFFECT IN TRUSS ERECTION

In the falsework for the truss erection the double bottom sills of the bents were of white oak, with white oak wedges set half way through the opening between the sills to allow of raising or lowering the falsework if required. The camber blocking on the bents was of soft fir and was of twice the camber called for in the riveted truss, so that while the truss would be amply supported, it could be crushed into place as the connections were pinned. At one bent the cap itself was crushed by the pinning of the diagonal members.

In a double-intersection truss like this, there would not be ordinarily enough flexibility for any camber beyond the reamed camber. But we did not make the diagonal connection to the top chord until the truss was erected complete and had settled, so that there was very little drifting required to force the truss to the reamed camber. The original plan required the center section of the top chord to be erected before the end sections, but this method was changed to enable the diagonal connections to be left until the last.

In shop assembly, the truss connections were reamed in the unstressed condition. This did not cause trouble nor distort the columns in making the field connections, since the truss was not connected to the columns (except for some few $\frac{3}{4}$-in. bolts) until after the truss had been riveted, with the exception of its top-chord splices. The reamed holes matched perfectly so that there was no such excessive dirfting as might be inferred from the crushing of the cap, mentioned above. This cap had been reduced in section by splitting portions away, for the reason that the camber blocking on top of the cap was hard to get at for splitting. Therefore the cutting away of the cap to cause it to crush was the easiest method of allowing the necessary settlement.

Since the whole truss had been assembled and reamed at the shop, it was bound to take its assembled position in the field. The erector's problem was to guess the amount of settlement, to camber the truss as high as possible to assist in making the top-chord connection, then to pin the truss down and crush the camber blocking, and finally on a hot day to make the bottom chord connection. This plan was followed successfully. The truss as erected had $2\frac{3}{8}$-in. camber, but $\frac{3}{8}$-in. of this was lost when the steel superstructure was erected on it. It is expected that 1 in. more will be lost under the full dead load of the concrete floors and the walls, leaving 1 in. camber in the truss when the building is completed.

By cambering the truss as high as possible we were aided in making the top-chord connections. It will be realized that $\frac{1}{16}$-in. is sometimes a great assistance in such connections. It may be noted that in the erection of the Mississippi River bridge of the St. Louis-San Francisco Ry. at Memphis, Tenn., one of the closing sections of the top chord was brought to the traveler packed in ice, and the bottom chord was surrounded by hot steam pipes.

Cambering the truss higher than called for was done partly to allow for settlement of falsework and because it is easier to lower than raise camber. Although, as stated above, it was necessary to pin one point until the cap crushed, this did not necessitate any excessive amount of pinning that would distort the metal, because if one point was higher than those on either side of it, it must have more weight on it and all the pinning would do would be to help this excessive weight crush the camber blocking until all three points had an equal bearing against the bottom chord.

The center section of the bottom chord weighed 42 tons and the center section of the top chord 40 tons. It was necessary to keep the first or small derrick 55 ft. from the farthest necessary reach of the 70-ft. boom and we were unwilling to subject the derrick to this overload. For making these two lifts, therefore, a 15-ton wood derrick with 70-ft. boom was placed on the track floor and used to take 12 tons of the load by calculating the point of lift on the chord for each derrick. The steel derrick was hooked to the chord at a point 19 ft. 3 in. from one end and the wood derrick at a point 12 ft. 3 in. from the other end, the chord being lifted in a vertical position and then lowered into its horizontal position in the truss.

There were over 11,000 tapered field rivets of 1 1/16-in. diameter in this truss, and some of these were 11¾ in. long. They were all driven by an air hammer and bucked up by air jams. These tapered rivets were adopted by the fabricator. For 1 1/16-in. holes, the rivets were 1-in. in diameter from the point to within about two inches of the head, then tapering to 1 1/16-in. to fill the hole. This is for the reason that a long rivet upsets from the driven end, fills the hole and plugs it so as to leave the head end with little or no upset. If the driven end is left cold or not heated so much as the head, the reverse takes place. If the middle is hot and the ends are cool, the rivet is upset at the middle. Of hundreds of long non-tapered rivets, both shop and fields, which I have examined after they were cut out, very few if any hand completely filled the holes. The shop work and design of the truss, which is the largest and heaviest ever erected for a building, was exceptionally good, and the McClintic Marshall Co. is to be congratulated on its work.

In the erection the building is riveted up complete from top to bottom for one panel at a time, as the work proceeds, the eight gangs of riveters being two panels behind the erectors. An air pressure of 100 lb. per square inch was maintained for riveting the truss, but the balance is being done with 95-lb. pressure.

The erection derricks are reeved with ⅝-in. wire rope, 13 parts to the topping lift and varying for the load lift. The topping-lift blocks are tandem six-sheave blocks designed and built by the erectors, the large sheaves being 18 in. and the small ones 16 in. in diameter. Each derrick has a 12-ft. bull wheel operated by a separate swinging engine of the steam turbine type. The double-drum hoists have 8¼ x 10-in. cylinders and four spools.

Progress averages 100 tons of steel erected per day per traveler and 3,400 rivets per eight-gang day. It is expected to complete the erection by Jan. 1, 1922. The Kelly-Atkinson Construction Co. has the contract for this erection, and the work is in charge of the writer as engineer for that company.

House Ownership in the U. S.

The number of homes in the United States as enumerated by the census of 1920, was 24,351,676. Of these 54.4 per cent were rented, 28.2 per cent were owned by the occupants and were free from encumbrances, while 17.5 per cent were owned but mortgaged.

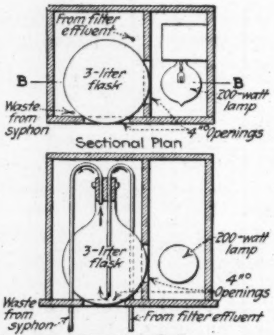
Loss of Head as a Criterion for Washing Filters

Arbitrary Time Interval Between Washes Replaced by a Rational Standard Obtained by a New Turbidity Detector

BY JAMES W. ARMSTRONG
Filtration Engineer, Montebello Filters, Baltimore, Md.

DURING the course of the last six years many things have happened at the Montebello filter plant to upset the ordinary accepted theory of things. One of these is the value of loss of head as a criterion for washing filters. Turbidity has replaced loss of head, and a new turbidity detector has been developed.

It was noticed that, with water coming to the plant under normal conditions and with filters being washed on an 8-ft. loss of head, the lengths of run would vary from about 48 to more than 100 hours with apparently good results. Occasions arose when the combined filter effluent would show cloudy water when the loss of head was as low as 3 or 4 ft. At such times loss of head was valueless as an indication of the proper time for washing filters, and an arbitrary method of washing based on the time of service was adopted.



TURBIDITY DETECTOR USED AT BALTIMORE FILTERS

As a means of determining the clarity of the combined filter effluent, a device similar to that used at several other plants was installed at the outlet of the filtered water basins. It consisted of a 60-watt electric lamp, with waterproof connections, which was lowered to the bottom of the basin. A piece of opalite glass was anchored on the floor under the lamp for the purpose of reflecting the light. This device enabled the filter attendant to detect the slightest turbidity in the water when it was from 6 to 8 ft. deep.

For judging the quality of the water leaving the plant it proved very helpful, but with a water not up to standard it failed to point to the guilty filter. It was thought that if such a device could be provided for each of the filters, it would establish a rational instead of an arbitrary standard for indicating the proper time for washing filters.

In at attempt to prove the practicability of the plan, several filters were equipped with 3-in. steel tubes, which were placed in the pipe gallery and provided with an inlet pipe at the bottom and an overflow pipe 5 ft. higher up. The filter effluent was kept flowing slowly through the tube and a light was placed under its glass bottom to permit observation of the water. The lighting conditions were changed from time to time, but the experiment was not a success because the small diameter of the tube interfered with the proper distribution of light, to such an extent that slight differences in turbidity could not be distinguished.

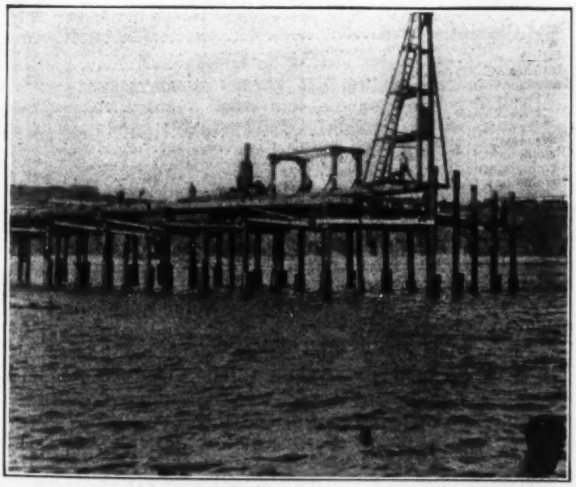
Next, experiments were made with what is virtually a Tyndall meter. A 3-liter flask was equipped with copper tubes for siphoning the filter effluent through it. The flask was set on one of the operating tables and beside it was a 200-watt electric lamp. Both were covered with a black wooden box with a partition separating the lamp from the flask. A small round hole in the partition permitted the light rays to pass through the flask at right angles to the line of sight, which was obtained through a similar round hole in the front of the box. At first some trouble was experienced with air, but after that had been overcome, even a very slight turbidity could be detected in the water. The results were so satisfactory that sixteen filters were equipped with similar devices.

So far, the personal judgment of the observer is the only means devised for comparing the effluent of one filter with another, and as this cannot be reported in definite terms, the objection might be raised against the appartus that it affords no definite standard of comparison. An attendant can, however, soon learn to detect the slightest difference in filter performance, and as this turbidity detector is more satisfactory than a loss-of-head gage, the remaining 16 filters are soon to be equipped with them.

Concrete Armored Piles in Wharf At Port Orford, Ore.

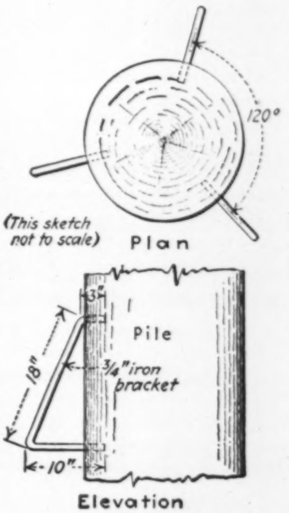
Metal Pipe Driven To Serve as Forms—Brackets in Piles Insure Desired Thickness of Concrete at Ground Line

A SMALL wharf recently constructed at Port Orford, Ore., is supported on piles which are protected from teredo action by a coating of concrete placed in forms of corrugated iron pipe slipped down over the pile. About 125 fir piles were driven in bents 20 ft. apart and protected in this way. Features of the work were the method of centering the piles in the form at the ground line and the follower used for driving the pipes. The need for some form of pile protection was decided upon after it had been found that on account of borer action unprotected piles in this port required renewal after about one year of service.



PORT ORFORD WHARF WITH PILE CASINGS IN PLACE
Concrete not yet poured or piles centered in casings

Before starting the work of pile driving, small dynamite charges were used to blast potholes at the point where each pile was to be located. After driving a pile to refusal the driver would back away while a section of 2-ft., 14-gage corrugated pipe, previously cut to desired length, was slipped over the pile and allowed to slide down to the bottom.



ARRANGEMENT OF BRACKETS

Penetration of the Casings.—The pile driver was then moved back into place and if the weight of the 3,400-lb. hammer resting on top of the follower was not sufficient to secure the desired penetration of the corrugated pipe casing, it was given a light blow, such as would be delivered by the hammer falling not more than 1½ ft. The depth of water ranged from 16 to 30 ft. and the maximum length of casings was about 34 feet.

The casings were ordered from the factory in lengths to fit every bent. They were allowed to extend 2 to 3 ft. above high water level and as the bottom at this location apparently does not change, the casings were driven only 10 in. to 2 ft. below the ground line. Because of the potholes blasted this penetration was considered to be of considerably greater effective depth than if driven without the aid of blasting. The lower limit of teredo action in this region is reported to be about 6 in. below the ground line.

The follower with which the casings were driven consisted of a short section of the casing with timber fittings or cushions on top and bottom. The one used on the bottom was a square frame of 10 x 10-in. fir in which a groove about 1½ in. deep had been cut to fit the top of the casing below. The section of casing used as a follower had to be long enough to extend above the pile top at least the amount of the penetration desired.

Method of Centering.—To center the pile in the casing three brackets were attached to each pile before driving at a point which would be about 3 or 4 ft. above the ground line. The penetration of the piles on this job ranged from 10 to 17 ft., but the change occurred at a fairly uniform rate so the penetration could be predicted with sufficient accuracy for placing the brackets. Each bracket was made of a piece of ¾-in. iron, 31 in. long, having right-angled bends 3 in. and 10 in. respectively, from the ends. By driving the 3-in. leg into the pile with the 18-in. side of the bracket extending toward the lower end of the pile, the lower right-angle bend would be 10 in. from the pile. This was greater than the thickness of concrete desired and the 10-in. leg was accordingly driven into the pile until the projection plus half the diameter of the pile at this point was slightly less than half the diameter of the casing.

The three brackets were spaced around the pile about 120 deg. apart. The upper end of the 18-in. side of the bracket was thus flush with the surface of the pile and sloped away from it in a downward direction. The brackets so arranged would guide the casing into place and hold it centered around the pile while the concrete was setting.

Concrete was mixed in the proportion of 1:2:3 and placed by means of tremies. No reinforcing was used.

The casings were dipped in asphalt before leaving the factory and although joints were not water-tight the leakage was so small that its effect on the concrete was disregarded. The piles varied from 10 to 14 in. in diameter at the larger ends and 24-in. casing was used for all alike.

S. P. Pierce of **Sixes**, Ore., under whose direction the design and construction were carried out, states that handling the tremies would have been easier if 30-in. casing had been used instead of the 24-in. Also he suggests that it would be better to make the 2 or 3 ft. of casing at the bottom plain instead of corrugated to facilitate getting the desired penetration. If this type of construction were to be used where shifting bottom was encountered, he suggested that greater penetration of the casing would be advisable.

Utilizing Gas from Sewage Sludge as Motive Power

BY JOHN D. WATSON

Engineer, Birmingham, Tame and Rea District Drainage Board, Birmingham, England.

A paper read before the Institution of Municipal and County Engineers, Birmingham, England, Nov. 12, 1921

THE ever increasing need for power on sewage-works, the present cost of fuel, the persistent demands for economy and the salvage of waste products are all influences which compel exhaustive inquiries into every possible source of power. The object of this paper is to suggest a source of power hitherto overlooked or minimized, and to describe experiments and experiences which are calculated to stimulate further inquiries into the possibilities of utilizing the marsh gas which is formed by organisms acting upon decaying vegetable and other organic substances.

When this Institution met in Birmingham two years ago, I described in some detail the intensive fermentation process adopted on the Birmingham sewage-works to render the vast quantities of sludge inoffensive without destroying its fertilizing properties, or lessening its calorific value. In that paper comparatively little was said about the gas evolved by the fermentation process beyond making reference to the marked differences between crude sewage sludge before and after it enters upon the septic or putrefactive stage. Illustrations were given to show that sludge during the digestion process is lighter than water, but what at first sight appeared to be a reversal of the law of gravitation is a delusion; it is merely an instance of solid matter being held up by gas formed in the course of the putrefactive change which takes place when organic matter is acted upon by bacteria and their enzymes. It was shown how sludge in this condition was more easily pumped than fresh sludge; friction in the process of forcing it through a cast-iron main five miles in length was lessened. When the main referred to was first laid difficulties were anticipated which were not realized in practice; it was assumed, therefore, that the comparatively frictionless propulsion of solids through the main was probably due to the reduced density of sludge and to an innumerable number of gas bubbles acting like so many ball bearings between particles of solids thus tending to reduce the viscosity of the sludge.

It is now proposed to refer to the nature and power of this gas, and to give illustrations of what it can be made to do when under control, for it is possible to harness this veritable will-o'-th'-wisp if the conditions are understood and taken advantage of in a scientific manner.

More than a quarter of a century ago gas generated in Cameron's covered septic tank was drawn off and employed in the Exeter sewage works. In the beginning of 1920, I visited the Matunga Leper Asylum at Bombay, where a small engine had been driven by sewage gas by Mr. James as far back as 1907. In both these cases the gas was generated in closed septic tanks which favored the cultivation of the anaerobic organisms, and at Bombay the climate was specially favorable. But the work done more recently by Mr. Walshaw at Parramatta in Australia, under what he terms aerobic conditions, are much more remarkable; indeed, it was knowledge of this case coming immediately after his Indian experiences which induced me to try whether it was possible to obtain equally successful results in the changeable, unreliable climate of England

The opportunity for making a test at Cole Hall presented itself to me and the Birmingham Drainage Board, which had some years previously approved plans for driving the pump there by a suction gas engine, consented to the scheme being varied to admit of a sewage gas plant being substituted for the suction gas plant. Very little alteration was required to meet the changed conditions and little expense was incurred in defraying the cost of the experiment.

The plant is designed to give 25 B. hp. for a working period of 6 hr. per day. It comprises a 34 (max.) hp. horizontal gas engine of the ordinary suction type, a 5-in. centrifugal "unchokable" sludge pump, a small sludge pump well, and a sludge digestion tank in two sections. There yet remains to be erected a small gasholder, without which it is impossible to keep the engine running for more than 1½ to 2 hr. consecutively.

The 9-in. exhaust pipes for the engine pass through the digestion or generating tanks with the object of imparting heat to the sludge and so promoting fermentation, thus benefiting from the experience gained at Saltley where for a dozen years it has been customary to inject live steam into the sludge during extremely cold weather. Provision is made for effecting an occasional disturbance of the mass by injecting compressed air, but this is not altogether satisfactory, as it interferes to a certain extent with the regulation of the mixtures supplied to the engine, and arrangements will shortly be made to effect the desired disturbance by means of compressed gas drawn from the top of the sludge digestion tanks. This will also serve to mix the fresh charges of sludge.

TABLE I. PERCENTAGE VOLUME OF MARSH GAS IN SEPTIC SEWAGES

	Per Cent
Exeter (Donald Cameron)	20.13
Exeter (Donald Cameron)	24.4
Matunga (C. C. James)	21.25
Matunga (C. C. James)	23.9
Lawrence (Mass. State Board of Health):	
Septic Tank A	79.0
Septic Tank B	37.5
Septic Tank F	75.9
Parramatta (Septic Gas Co., of Australia)	60.0
Birmingham (J. D. Watson), Aug., 1921	60.1
Birmingham (J. D. Watson), Sept., 1921	77.0
Birmingham (J. D. Watson), Nov., 1921	67.5

The principal constituents of sewage gas are methane (CH_4) hydrogen (H) nitrogen (N) and carbon dioxide (CO_2) and it is upon the marsh gas or methane we chiefly rely.

Table I gives the percentage by volume of marsh gas found in various septic sewages in England, America, Australia and India and Table II gives analyses of the sewage gas at Birmingham in September and October.

TABLE II. ANALYSIS OF BIRMINGHAM SEPTIC TANK GAS, SEPTEMBER AND NOVEMBER, 1921

	Per Cent	Per Cent
Carbon dioxide CO_2	18.1	25.2
Hydro carbon HC	0.2	...
Oxygen O_2	0.4	0.3
Carbon monoxide CO	1.1	
Methane CH_4	77.0	67.5
Ethane C_2H_6	trace	2.8
Nitrogen N_2	3.2	4.2
	100.0	100.0
B.t.u.'s per cubic foot	700	650

Results from such a wide selection of places in different parts of the world seem to indicate that marsh gas is evolved from organic matter as readily in one climate as in another, but in fact it is not so, and the results of the analyses show the need for more definite information and caution in their application. Results obtained by Mr. Rhead, chief chemist to the Birmingham Gas Department, in his analyses of the Cole Hall gas emphase this statement.

The amount of gas from the total volume of available sludge which can be relied upon at Cole Hall is greater than the power demand there, but it is certain to vary with the seasons, and it is as sure to vary with the age, the volume, and the condition of the organic matter in the sludge. Steps are therefore being taken to investigate the facts with a view to preparing graphs which will show (1) the volume of gas to be obtained from a given volume of average sludge (10 per cent dry solid matter) in a given time (2) and one which will show at what time the sludge gives off the maximum quantity of gas, and what time is needed to change that maximum into a minimum.

Probably the majority of the results given in Table I were obtained from septic sewage, but I think it is from sludge and not from liquid sewage that gas can be obtained in sufficient volume to render its use economical. This statement is contrary to that put forward by Australian observers, who claim that the best results can be obtained from aerobic treatment of sewage.

Up till now the sludge available at Cole Hall has been very watery (containing only 3 per cent dry solid matter.) This was owing to the fact that the supply was temporarily dependent upon the ability of a land irrigation pipe laid on a very flat grade to convey it from the outfall works to the engine house. By a new sludge main which will soon be completed a denser sludge (at least 10 per cent dry solid matter) will be conveyed to the tanks, thus reducing the volume of water which has hitherto entered the tanks, persistently lowering the temperature of the mass and taking up space which should be occupied by organic matter which is capable of yielding gas. With a more concentrated sludge, it is evident that the gas forming material temporarily confined in the limited space should produce a greatly increased volume of gas (a matter of prime importance until a gasholder is provided as part of the installation), for it is necessary to impound surplus gas to be drawn upon when the demand by the engine exceeds the volume available in the digestion or generating tank.

TABLE III. ANNUAL COST OF SEWAGE GAS PLANT COMPARED WITH STANDARD SUCTION GAS PLANT

Duty—25 B.hp. for daily period of 6 hr. The cost of gas engine, engine house, pump and pump well being common to both plants, is ignored in the comparison. The cost of labor, lubrication, and repairs is also approximately equal, and does not appear in the comparison.

Suction Gas Plant:						
Capital cost, £300.						
Annual charge on £300@ 10%	£30	0	0			
30 tons of anthracite at £3 per ton (allowing $1\frac{1}{4}$ lb. per B. hp.hr.)	91	10	0			
				121	10	0
Sewage Gas Plant:*						
Generating tanks, with complete equipment of fittings, and all pipe work £600 at 7% (repayable in 25 yr.), £42.						
Provision for gasholder £500 at 10% (repayable in 14 yr.), £50				92	0	0
Net annual saving in favor of sewage gas plant				£29	10	0

* Probably the sewage gas plant can be cheapened when more exact knowledge of the principles of working have been obtained.

Notwithstanding existing weaknesses in the experimental plant, the fact remains that the engine has worked successfully and has given out the power required to drive the pump.

At Cole Hall, where the gas engine has been installed, the method of disposing of sludge has hitherto been quite different from that obtaining in the main works in the Tame Valley. At the latter works the sludge is subjected to the fermentation process, but at Cole Hall farmers buy it for agricultural purposes, and it is obvious that so long as it can be got rid of in this, the most satisfactory way, there is no need to employ intensive fermentation. At Cole Hall, therefore, only sludge required to give off gas for power will be subjected to fermentation, and judging from the limited experience available it is estimated that about two tons of wet sludge (10 per cent dry solid matter) per day will be required to provide an explosive gas capable of generating 25 B.hp. for a working period of 6 hr. per day. The amount of available sludge at Cole Hall is approximately 80 tons per day (10 per cent dry solid matter).

The sludge after it has been discarded will probably be freer of fat and grease than it was before fermentation, and to that extent it will be more valuable to farmers than it was in its initial stage; moreover it will still retain about 2 per cent of nitrogen after it has given off its methane, so that its fertilizing properties are not thereby exhausted, if indeed they are materially lessened.

Before emphasizing the fact that we have in marsh gas a useful power for driving an internal combustion engine, and that we have great volumes of this gas in sewage sludge, there is the all important question—is it economical to use it?

It is obviously the business of the engineer to determine this, and he will require to take into account comparative costs of fuels, probable fluctuations in prices, the location of the works, transport facilities, effect of strikes on the supply of fuel, etc.

It was originally intended to put in a suction gas plant, and although it is hardly time to make a comparison which can be relied upon, the figures given in Table III are interesting and may be helpful.

The following notes should be pondered by those who think of developing the Cole Hall experiment. Success in designing an installation is dependent on accurate information regarding (a) the percentage of sludge (dry solid matter) which is capable of gasification, (b) the rate of evolution of the gas at various temperatures, and (c) the proportion of methane in the composition of the gas.

(a) Sludge, like sewage, is of diverse composition; much of its value as a gas producing substance depends upon the efficiency of the grit chambers and the amount of organic matter left in the sludge. There can be no doubt that the gas comes from the decomposition of organic matter, and an inordinate proportion of inorganic matter would be a distinct hindrance; so would large doses of tarry and oily substances mixed up with the sludge lessen, if they did not entirely inhibit, the gas producing power of the putrefactive organisms.

Again, a modern sewage system is designed to convey to a place of disposal almost every form of trade as well as domestic wastes, and water is the vehicle by which it is conveyed. That the fouled water contains organic matter is true, but obviously it is the sludge which is brought down with the water that contains the material from which gas is produced, so that the less liquid there is in sludge which is set aside for gasification the better. This, however, leads to a position where one may go wrong very readily. It is most difficult to obtain fresh sludge which contains more than 10 per cent of dry solid matter, but the author has found to his cost that you may keep such sludge in a tank for a whole year without its undergoing the putrefactive change so essential to the production of gas. It is not enough, therefore, to set aside great volumes of organic matter—that matter must be introduced into a tank which has already been inoculated by the right organism, and it should not be introduced so rapidly that the organisms are smothered.

On the Saltley works, where sludge is treated in order to deprive it of smell and its emulsive character, it is found to be advisable to mix the fresh material with about 20 per cent of "ripe" sludge when it is first transferred into a digestion tank; it is desirable also to maintain its temperature as high as possible with the view of providing those conditions which favor putrefactive change. Probably Dr. Travis' hydrolytic tank was the direct result of the desirability of doing this work efficiently. Dr. Imhoff, the German engineer, improved on Travis' tank and boomed it in America, where it has proved to be a very efficient instrument for separating fresh sewage from sludge which is kept designedly for months in order to convert it into an inodorous mass. The Birmingham method is better adapted to local circumstances, but the results are similar except that the Birmingham method is so arranged that it is possible to isolate sudden rushes of anti-septic liquor, a matter of considerable importance at times.

Another line of investigation essential to ascertaining the volume of gas which may be evolved from a given quantity of sludge is the influence of agitation. We know as a fact that disturbance of the mass is beneficial, but we are ignorant of the extent to which it should be carried. When a silt tank at Saltley fails to ferment, its contents are passed through the pump and distributed amongst what are termed ripe or healthy tanks. The breaking up of the sludge as it passes through the direct-acting pumps effects a considerable change, but this side of the question requires further investigation, and what has already been done in Australia in this regard should not be overlooked.

(b) Temperature plays a very important part in the rate of evolution of gas, and the volume extracted from a given quantity of sludge. In a sewerage district of 115 sq.mi. it takes so long for some sewage to travel to the outfall that it is mildly septic before it arrives there, but when the district is small the liquid portion of the sewage is for the time being almost free of putrefactive tendencies and will probably remain so throughout its treatment. The sludge, too, may take longer to septicize but if treated under anaerobic conditions should be converted into gas in the quickest and most favorable way. We do not know the temperature at which the organisms will cease to act altogether, nor the temperature at which they will act most efficiently; investigation is required, therefore, if we would ascertain this one of the essential factors of the problem

TABLE IV. DATA REGARDING BIRMINGHAM SEWAGE-GAS INSTALLATION

Ordinary suction gas engine	34 (max.) B.hp.
Duty of engine	25 B.hp. for 6 hr. per day.
Quantity of gas consumed per hp.	20 cu.ft.
Estimated quantity of gas required per day	3,000 cu.ft.
Maximum duty of "unchokable" pump	450 imp. gal. per min. against a head of 36 ft., at about 1200 r.p.m.
Rising main	12 in. diameter.
Sludge capacity of generating tank	80 cu.yd.
Proposed capacity of gasholder	2,000 cu.ft.
Aevrage proportion of methane in gas	60 to 77%.

The composition of the sludge also should be considered when endeavoring to find out the rate of evolution of gas. Domestic sewage *per se* is probably better than any other for gas production, and some sewages, so far from containing putrefactive organisms, possess qualities which sterilize those that emanate from domestic sources. Rushes of acid water, for example, affect whatever they come in contact with. One of the Birmingham outfalls is so bad in this respect that in five months a new-cast iron centrifugal pump impeller is pitted all over and the extremities worn to fine points.

(c) The analytical constituents of the gas emanating from the available sewage sludge should be determined with accuracy. The figures in our possession are limited; so far they lead us to say that the gas contains from 60 to 77 per cent of methane, but with frequent determinations taken over a longer period it will be possible to give a more reliable figure.

Table IV gives some of the main figures regarding the sewage-gas installation.

The following observations on the working of the plant between Sept. 6 and Nov. 3, 1921, although varying in some respects with our original estimate, are of considerable importance: Total amount of dry solid matter passed through tanks, 4 long tons; average period of retention, 6.4 weeks; average percentage of dry solid matter in wet sludge, 3; (the plant now contains sludge having a proportion of 10 per cent dry solid matter); estimated amount of gas consumed by engine, 25,000 cubic feet.

The total gas yield is, of course, in excess of this amount, but it will only be possible to measure it when a gasholder is available. Under present circumstances a considerable quantity of gas is lost each time a recharge of sludge is made. A certain amount of gas has also been lost in making tests and minor alterations. A gas production of 25,000 cu.ft. from four long tons dry solid matter is equivalent to 1 cu.ft. gas from 0.36 lb. dry solid matter, or a gasification of 18 per cent of the total dry solid matter. This is only 60 per cent the amount of sludge gasified in open tanks in the Tame Valley.

In conclusion, it is worthy of remark that the fact which has influenced the author more than any other in following up this experiment consists in this: that 400,000 long tons of wet sludge containing 27,000 long tons of dry solid matter is dealt with on the main works at Birmingham every year, and that as much as 9,000 long tons of dry solid matter is gasified. This is equivalent to 320,000,000 cu.ft.

Rectangular Enginehouse with Interior Turntable

Two Canadian Railways Adopt Novel Plan To Reduce Winter Trouble at Terminal by Putting Turntable Under Cover

A TURNTABLE placed inside a rectangular enginehouse and serving sixteen radial tracks with repair pits is the very unusual arrangement adopted at the new engine terminal of the Canadian National Railways at Hornepayne, Ont. Its purpose is to facilitate work under severe conditions due to prolonged low temperatures reaching 60 deg. F. below zero, when turntable work is very hard on the men. It also eliminates snow troubles, although at this place the snowfall is not very heavy as a rule and owing to the extreme cold the snow is usually fine and hard, so that it is not difficult to handle. But at many points snow troubles would make an inclosed turntable very desirable. The general plan is shown in Fig. 1.

This unusual arrangement was adapted from a similar enginehouse built in 1912 at Sault Ste. Marie, Ont., for the Algoma Central & Hudson Bay Ry. and designed jointly by R. S. McCormick, chief engineer of the railway, and P. L. Battey, then chief engineer of the Arnold Co., Chicago. In the older building, Fig. 2, 179 x 266 ft., there is a two-track entrance and two tracks extend through the machine-shop at the rear. Steel roof trusses are carried by columns spaced 44 ft. in each direction, except that at the turntable there is a span of 88 ft. A special feature is that the repair pits are served by a circular industrial track of 24 in. gage, this line being connected by turntables with lateral tracks to the drop pits and into the machine shop.

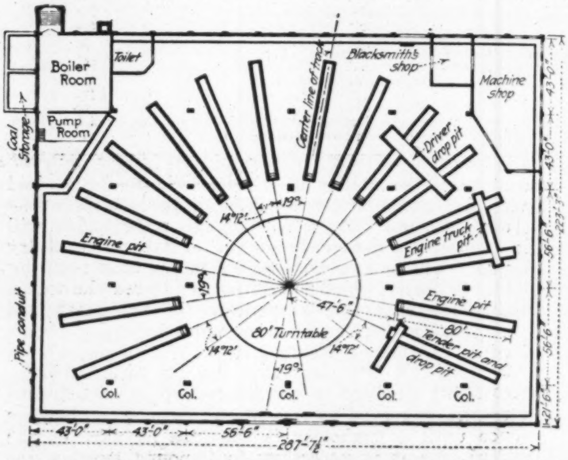


FIG.1. ENGINEHOUSE WITH INTERIOR TURNTABLE AT HORNEPAYNE, CANADIAN NATIONAL RAILWAYS

Where the rectangular form of enginehouse has been adopted by American railways it has been the usual practice to have a layout of parallel tracks served by a

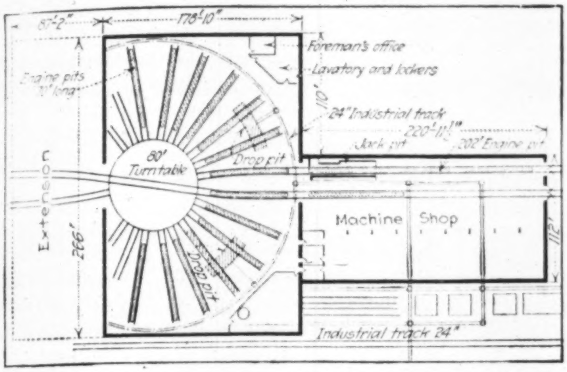

87'-2"
178'-10"
Foreman's office
Lavatory and lockers
Engine pits 80' long
110'
24" Industrial track
220'-11½"
Jack pit
202' Engine pit
80' Turntable
Drop pit
Extension
266'
Machine Shop
112'
Drop pit
Industrial track 24"

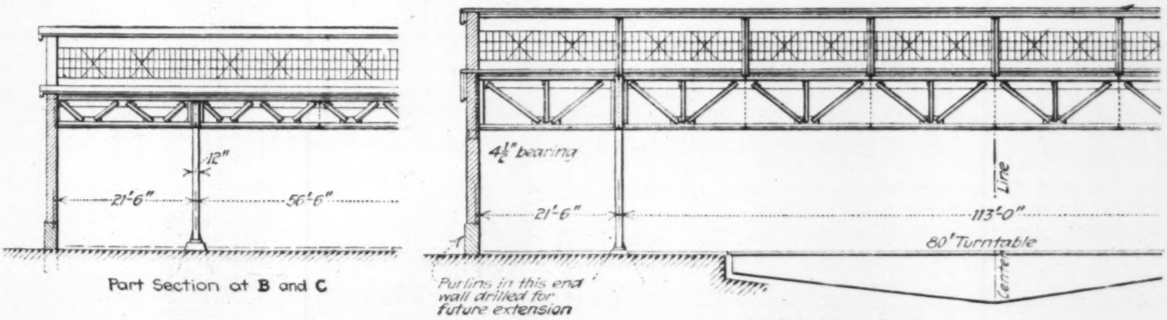
FIG. 2. ENGINEHOUSE WITH INTERIOR TURNTABLE ON ALGOMA CENTRAL & HUDSON BAY RY.

transfer table or by a ladder track on the outside, as in the enginehouse of the Denver & Rio Grande R.R. at Soldier Summit, described in *Engineering News-Record* of May 27 and June 10, 1920, pp. 1069 and 1159. Rectangular structures with inclosed turntables have been used in England. An enginehouse of this type on the Great Western Ry., 440 x 360 ft. has four 65-ft. turntables, each serving 28 radial tracks of different lengths, six of these tracks forming entrances (see *Engineering News*, June 13, 1907, p. 642).

From the plan, Fig. 1, it will be seen that the Hornepayne enginehouse is 287½ x 223½ ft., with two entrance tracks leading to a turntable near the front of the building, and with another track passing out at the rear. This arrangement provides for a future extension, the turntable being then at the center of the building. This 80-ft turntable is of the center bearing type, operated by a compressed-air tractor which rides on the circle rail. The walls of the building are of brick on concrete foundations which are carried to a depth of 7 ft. A water-bearing mixture of sand and clay makes a top soil difficult to deal with, and quicksand is found at 4 ft. below the foundations. A considerable proportion of the wall area is of steel sash and the track entrances have wooden swinging doors. A cinder floor is laid, except that concrete is placed in the machine shop and boiler room.

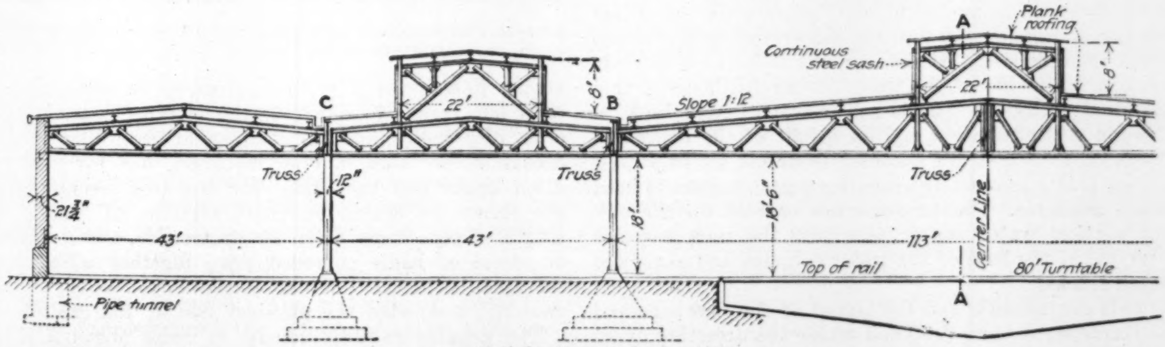
Steel roof trusses form a rectangular framing with spans of 21½ to 56½ ft., except that at the center the span is 113 ft. in both directions in order to clear the turntable, as shown in Figs. 1 and 3. The interior columns, built up of H-beams and plates, rest on concrete pedestals whose tops are 11 in. above base of rail. Three monitors 8 ft. high and 22 ft. wide, extending the full length of the building, have their sides formed of steel sash with ventilating panels. This roof is designed for a total load of 10 lb. per sq.ft. and has 3-in. plank sheathing covered with tar and gravel.

Radial tracks laid with 80-lb. rails are spaced at an angle of 14 deg. 12 min. between center lines, except that where columns intervene the angle is increased to 19 deg. All the repair pits are 80 ft. long. Two are connected by a transverse drop pit for handling driving wheels and two others have a similar but smaller pit for handling truck wheels. One of the end pits is reserved for tenders and has a lateral drop pit for handling the truck wheels. A hot water plant for washing out boilers is provided, and all pits have convenient connections to pipe lines for steam, compressed air and hot and cold water. Electric lighting is provided, with portable drop lights for use in the pits. Wood smokejacks are used, of a standard type designed and built by the railway. It is stated that none of them have ever caught fire, as they are protected by fire-resistant paint and soon accumulate a protective coating of soot. These smokejacks are placed 119½ ft. from the center of the


12"
21'-6"
56'-6"
4½" bearing
21'-6"
113'-0"
Center Line
80' Turntable
Purlins in this end wall drilled for future extension

Part Section at B and C

Half Section A-A


A
Plank roofing
Continuous steel sash
22'
8'
C
22'
8'
B
Slope 1:12
Truss
12"
Truss
Truss
21¾"
18'
18'-6"
43'
43'
113'
Center Line
Top of rail
80' Turntable
A
Pipe tunnel

Half Section on Center Line

FIG. 3. STEEL ROOF FRAMING OF RECTANGULAR ENGINEHOUSE

turntable. Six exhaust ventilators with 36-in. openings are placed over the turntable at 30 ft. from its center.

Concrete repair pits are employed, these pits and the turntable pit being all drained to a sewer. No crane is provided, but all raising of the engines is done by jacks. For this purpose a rather unusual floor and track construction is used, as shown in Fig. 4. Each pit wall is covered with transverse timbers 6 x 10-in. laid close together; these timbers are 3 ft. 3 in. long, with one end projecting 5 in. over the pit and the other end spiked to a 6 x 10-in. timber embedded in the soil. At the pilot end of the pit there is on each side a jacking block of concrete instead of the wooden blocks, which arrangement has been found very satisfactory. Track rails of 80-lb. per yd. laid upon the transverse timbers are secured by clamps with long drift bolts driven into vertical 2 x 2-in. sticks embedded in the concrete.

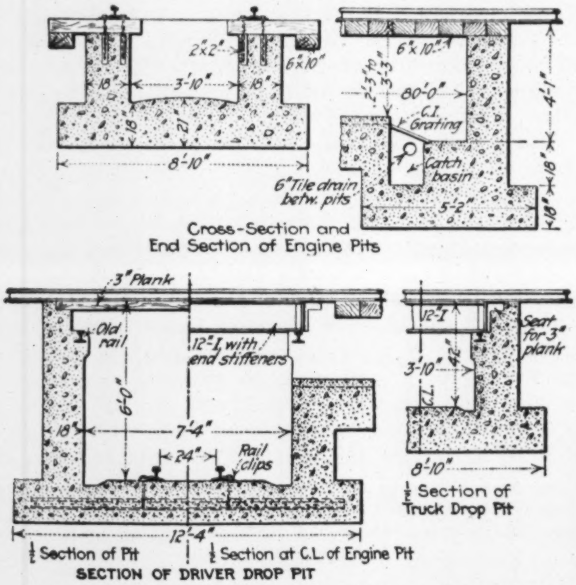

2"x2"
6"x10"
18"
3'-10"
18"
18
21
8'-10"
6"x10"
2'-3" to 3'-3"
80'-0"
C.I. Grating
Catch basin
6" Tile drain betw. pits
5'-2"
4'-1"
18"
18"
Cross-Section and End Section of Engine Pits
3" Plank
Old rail
12" I, with end stiffeners
6'-0"
18"
7'-4"
24"
Rail clips
12'-4"
½ Section of Pit
½ Section at C.L. of Engine Pit
SECTION OF DRIVER DROP PIT
12" I
Seat for 3" plank
3'-10"
42"
12"
8'-10"
½ Section of Truck Drop Pit

FIG. 4. ENGINE REPAIR PITS AND DROP PITS

Track rails are carried across the drop pits on 12-in. I-beams, the ends of which, fitted with stiffeners, are seated on old 56-lb. rails embedded in the walls of the drop pits. The large drop pit has rails secured to the concrete floor by anchor bolts and clamps, forming a track of 24 in. gage for a truck carrying the hydraulic jack which handles driving wheels. No track is provided in the two smaller drop pits. These three drop pits are covered by loose 3-in. planks when not in use.

A machine shop and blacksmith shop are located in one corner of the building. At the opposite corner are a toilet room, pump room and boiler room, this last having an outside 150-ton coal bin served by an incline track on a trestle. A pipe conduit 3 ft. wide extends around the inside of the wall. Other facilities at this terminal include a 70,000-gal. elevated steel tank, a 200-ton coaling station and an ashpit of the depressed track type. Ashes are shoveled from the pit into cars, except that a locomotive crane with grab bucket is used when available. Steam pipes are carried up through the vertical water supply pipe into the tank and are also laid at the base of the water columns and along the coach tracks.

This enginehouse and the layout of the new terminal at Hornepayne were designed under the direction of A. F. Stewart, then chief engineer. The work has been carried out by railway forces under H. T. Hazen, acting chief engineer of eastern lines, Canadian National Railways; W. V. Appleton, general superintendent of rolling stock, and G. C. Briggs, architect.

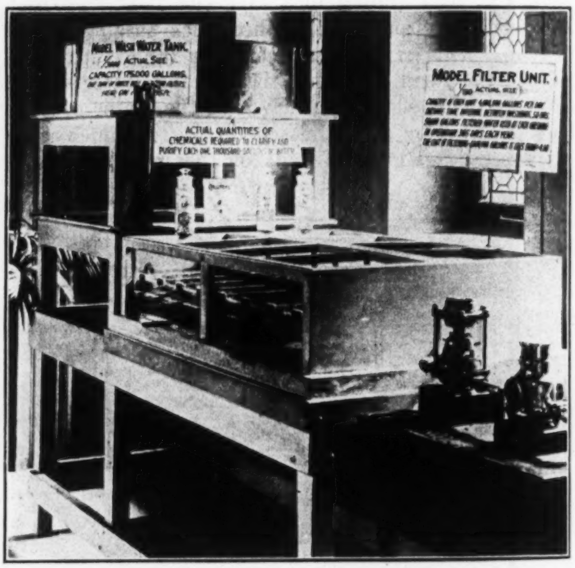
Water-Works Shares in Exhibit of St. Louis City Activities

By T. Chivvis
Engineer-in-Charge, Distribution Section, Water Division, St. Louis, Mo.

THE various city departments of St. Louis, Mo., were recently requested by the Municipal Reference Library to place on exhibition such apparatus, models, maps and photographs as would show to advantage the activities of the city. The city engineers, among many others, have responded in a manner which has attracted wide attention.

The Water Division constructed a model filter unit on a $\frac{1}{12}$ scale, which was connected to the $\frac{3}{8}$ in. supply of a bubbling fountain and drained into the bowl of this fixture. Head is supplied to the wash water by a circular copper tank supported several feet above the bed. On account of the greatly reduced depth of sand and other difficulties, no attempt was made to filter turbid water. The usual washing rate cannot be obtained on account of the restricted capacity of the bubbler drain, but with these two exceptions the model operates exactly as the real filters.

Two $\frac{3}{8}$-in. glass-case water meters are installed in the supply line to the filter, not primarily to measure the rate, but rather to illustrate the interior construction of a disc meter and its manner of recording water consumption. Two tapping machines, one for corporation cocks and the other for cast-iron connections, are shown in action on short sections of main. A length of pipe badly eaten by electrolysis, and a couple of pieces of badly corroded pipe, together with photographic evidence of the improvement wrought by cleaning, completed the physical side of the exhibit.


MODEL WASH WATER TANK.
ACTUAL SIZE
CAPACITY 175,000 GALLONS
ACTUAL QUANTITIES OF CHEMICALS REQUIRED TO CLARIFY AND PURIFY EACH ONE THOUSAND
MODEL FILTER UNIT.
ACTUAL SIZE

MODEL FILTER UNIT IN EXHIBIT OF ACTIVITIES OF CITY DEPARTMENTS OF ST. LOUIS, MO.

The graphic exhibits consist of maps showing proposed extension work being planned and executed.

The Probable Frequency of Given Rates of Rainfall

Average-Rate Method More Economical for Design of Public Works than Uniform-Intensity Method—Data Reviewed

By Adolph F. Meyer
Consulting Engineer, Minneapolis, Minn.

From time to time articles have appeared in *Engineering News-Record* and other technical magazines relating to the probable frequency with which certain rates of intense rainfall may be expected in various parts of the country. In these studies of rainfall a procedure has been adopted which leads to erroneous conclusions respecting the frequency with which given amounts of precipitation may be expected in periods of from about 30 to 120 min. Conclusions regarding the frequency of downpours of shorter duration, as a rule, are not materially affected.

My criticism is directed to the failure to consider rainfalls occurring within 50 min., for example, in determining the frequency with which 60-min. downpours of certain magnitude will probably recur. In the design of engineering works, the fact really used is the amount of rain that falls within a given time, rather than the rate of rainfall in inches per hour for that time. Most runoff formulas use the term "rate of rainfall" merely as a matter of convenience, because this is substantially equivalent to the run-off from an impervious area in cubic feet per second per acre. The rainfall rates commonly used in these formulas are derived from the amount of precipitation registered by rain gages and therefore represent *average* rates for the given time intervals. Hufeland, in his article, "Long-Time New York Rainfall as Basis for Sewer Design—II" (*Engineering News*, Sept. 7, 1916), objects to the use of these average rates and advocates the use of only those downpours having rates of uniform intensity. Notwithstanding his criticism, however, I believe the use of the "average-rate" method leads to safer and, all factors considered, more economical public works than the "uniform-intensity" method which he advocates. If we had 500 or 1,000 years of rainfall records, the latter method would be preferable. After all, "uniform intensity" is but a relative term; it represents the *average* rate for a certain time interval. The measure of uniformity adopted will determine the number of rainfall observations which will be available for use. Until a great many more intense rainfalls have been observed, averaging rates over considerable periods of time is necessary to secure a reasonable record of the frequency of given downpours. The resulting average rate of rainfall undoubtedly is as dependable a basis for a conclusion respecting the required sewer, drain or ditch capacity as the other factor entering into this problem. Hufeland further criticizes the "average-rate" method because he finds that the excessive rates, for a given time interval, are not uniformly distributed through the period of observation. Assuming the records referred to as dependable, the fact stated does not in itself form ground for criticism of the "average-rate" method, but rather of the irregular manner in which given rates of precipitation recur with respect to both time and place.

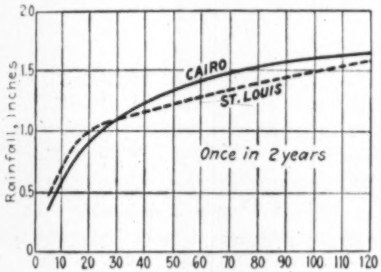


FIG. 1

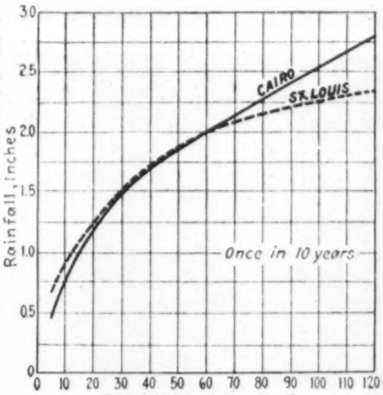


FIG. 2

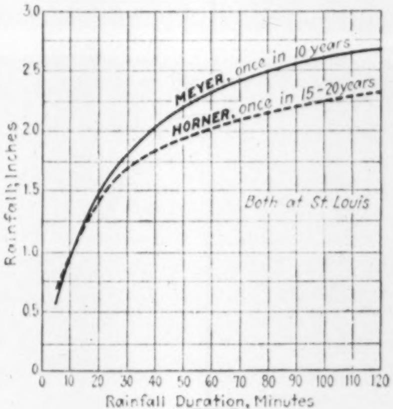


FIG. 3

FIGS. 1 AND 2. MAXIMUM RAINFALL TO BE EXPECTED AT ST. LOUIS, MO., AND CAIRO, ILL., ONCE IN TWO YEARS AND ONCE IN TEN YEARS. FIG. 3. MAXIMUM RAINFALL TO BE EXPECTED AT ST. LOUIS

Determined from records of individual stations.

The 50-year record at New York City, in my judgment, does not form as satisfactory a basis for determining the probable frequency with which given rainfalls will recur as the combined 15- or 20-year records of considerable number of observation stations in this region.

Intense rainstorms usually cover only a few square miles. Observation stations only 5 or 10 miles apart often show as much dissimilarity in the rates of excessive precipitation during intense rainstorms as stations 50 or 100 miles apart. As there are only about two hundred Weather Bureau Stations in the United States at which continuous records of precipitation are being secured, it is apparent that only a few of the downpours which actually occur are being recorded. In some of the larger cities, municipal organizations are maintaining a number of observation stations and are thus obtaining more complete data.

It is safe to say that, taking the country as a whole, doubling the number of observation stations would double the number of records of excessive precipitation obtained in any given number of years. For the same reason, the records of several stations in one region are virtually equivalent to a longer record at a single station. One record supplements the other, making a combined record which is far more representative of the frequency with which given rates of precipitation may be expected than the records of a single station.

The extent to which the records of one station supplement those of another in the same part of the country is well illustrated by a study of Table 11 in my

"Elements of Hydrology" (John Wiley & Son, New York City) which gives a summary of 1,962 rainstorms in the United States. Stations with a disproportionate number of very excessive storms usually have a defficiency of ordinary storms. Other stations that have experienced many short storms have had comparatively few long ones, and vice versa.

These same facts are brought out by the curves of Figs. 1 and 2. The data from which these curves are plotted are taken from Table 14 of my "Elements of Hydrology," which in turn is based upon the United States Weather Bureau records for the 19-year period, 1896-1914, inclusive. These curves clearly show that during the 19-year period, St. Louis, Mo., had a large number of exceptionally heavy 5-, 10- and 15-min. downpours and a defficiency of heavy 1-hr. and 2-hr. storms. Cairo, Ill., on the other hand, had a deficiency of short downpours and an excess of storms of long duration. Cairo had a few extremely heavy long storms. At St. Louis these were lacking. Neither experience is representative of the average frequency of recurrence of such storms.

The effect of estimating the probable frequency of recurrence of intense rainstorms from the records of a single station is well illustrated by the curves of Fig. 3. The St. Louis (Mo.) standard intensity curve as given by Horner, in my judgment, shows rates which are too high for 5-min. downpours and decidedly too low for storms lasting from 45 to 120 minutes. (Run-off computations for 70,000-acre storm water drainage area, St. Louis, *Eng. News*, Mar. 22, 1917, p. 470.)

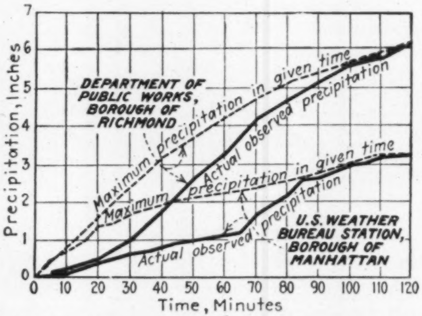


FIG. 4. DIFFERENCES IN RAINFALL AT NEAR-BY STATIONS.

During the 19-yr. period above referred to, St. Louis had four 5-min. downpours within which more than 0.6 in. of rain fell. This is equal to the number of similar downpours observed at Jacksonville, Fla., during the same period and one more than the number observed at Galveston, Texas. Or, to put it another way, at St. Louis, during the 19-yr. period, as many or more heavy 5-min. downpours occurred as at any other one of 43 stations in the United States included in the rainfall studies summarized in Table 11 of my "Elements of Hydrology." On the other hand, during the same time interval, only two storms occurred at St. Louis within which more than 1.8 in. of rain fell in one hour. This is less than fell in one hour at any one of the 18 stations located in regions of comparably heavy precipitation, for which data are given in my Table 11, previously referred to.

The difference between intense rainfalls at near-by stations is well illustrated by Fig. 4, which is a record of the New York City storm of Oct. 1, 1913, as observed in the boroughs of Richmond and Manhattan. There is practically no similarity between coincident rates of rainfall at these two stations, only five miles apart.

Assuming now that for most purposes engineers will continue to use the "average-rate" method as against the "uniform-intensity" method in the analysis of rainfall records, I contend that if a downpour ends in 25 min., for example, the amount of rain which fell in that time should also be used in determining the average rate of rainfall for 30 min., etc. A mere statement of the case would appear to carry conviction with it. It is not apparent that there is any material difference between the effect on a sewerage or drainage system of a storm lasting 60 min., for example, during which there is an interval of very light rainfall for 10 min., and another storm within which the same amount of rain falls during 50 continuous minutes.

As an illustration of the inconsistency of grouping storms exclusively by duration in minutes rather than by amount of precipitation in inches, the storm at Buffalo, New York, March 20, 1897, may be cited. During this storm, 0.79 in. of rain fell in 5 min. This amount of precipitation was equal to a 10-min. downpour to be expected only once in about 15 yr. Therefore, in determining the frequency of given rainfalls in Buffalo, this storm should clearly be considered also as a 10-min. storm, even though the rain all fell within 5 minutes.

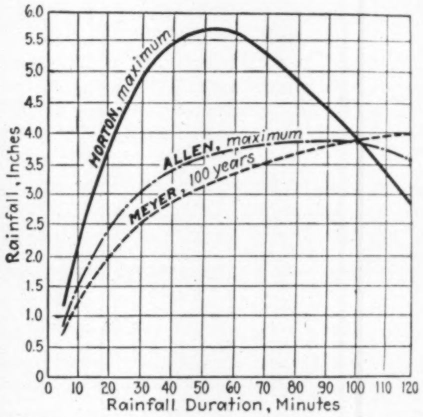


FIG. 5. MAXIMUM RAINFALL TO BE EXPECTED IN A GIVEN TIME-INTERVAL, NEW YORK CITY

On Aug. 20, 1901, 1.77 in. of rain fell at Cleveland, Ohio, in 20 min. During the next 5 min., only 0.01 in. fell, or 1.78 in. in 25 min. This storm did not last 30 min.; nevertheless, 1.78 in. may be expected at Cleveland in 30 minutes only once in about 25 years.

Another storm of this character is that of Aug. 12, 1910, at Duluth, Minn., when 1.38 in. fell in 20 min. and 0.02 in. during the next 5 min. Although this storm lasted only 25 min., yet the amount of rain which fell is to be expected in 30 min. only once in about 12 yr. at Duluth.

Another illustration is the 20-min. storm of Sept. 30, 1902, at Indianapolis, Ind., when 1.08 in. fell in 10 min., and only 0.01 in. in each of the succeeding 5-min. periods. There is no more reason for including this storm among the 15- and 20-min. downpours because 0.01 in. fell during each of the last two 5-min. intervals than if the storm had ended completely in 10 minutes.

Hundreds of examples of this kind could be cited. It is not at all unusual for the rate of rainfall to become very small just before the end of the storm. For this reason, it is just as logical to consider a 45-min. downpour as a 60-min. storm as if a few hundredths of an inch of rain had fallen during the last 15 min. The basis for grouping should be the amount of precipitation; and the average rate of rainfall to which this amount is equivalent should receive consideration for all time intervals within which it appears excessive.

The amount of rain that fell during most of the 100 typical intense rainstorms for which detailed data are given in Table 12 of my "Elements of Hydrology" (pp. 161 to 172), was equivalent to excessive rainfall rates over time intervals considerably longer than the actual duration of the storm. Some of these rainstorms yielded very little precipitation at the beginning of the storm, others near the middle of the storm, and still others near the end. The determination and use of intense rainfall rates for time intervals beyond the actual duration of the storm is but a reasonable interpretation and extension of the "average-rate" method of analysis.

How illogical it is to group downpours only with respect to time is well illustrated by Allen's Table No. 1, in "The Prediction of Probable Rainfall Intensities," *Engineering News-Record*, April 7, 1921, p. 588. Allen has no record of rainfall exceeding 1½ in. per hour for 120 min. (equivalent to 3 in. of rainfall) even though 3.14 in. actually fell at the Central Park Observatory in New York in 100 min. on Oct. 1, 1913; 3.60 in. fell in 80 min. on Sept. 4, 1913, and 3.02 in. fell in 60 min. on July 28, 1902.

A similar error appears in Horton's Table No. 3, in his article "Some Broader Aspects of Rain Intensities in Relation to Storm Sewer Design," published in *Municipal and County Engineering*, June and July, 1919. According to this table, a rate of 1.33 in. per hour for 120 min. or 2.66 in. of rain, is the maximum to be expected in New York City once every 45 yr. Nevertheless, the same table shows that 3.40 in. of rain is to be expected within one hour once every 45 yr. It is not conceivable that a rainfall of 3.40 in. in one hour may be totally disregarded when estimating the probable frequency of 2-hr. rainfalls. The fact that once during the period of record 3.40 in. of rain fell in 60 min. is no good reason for assuming that the next time a similar storm passes over this territory the same amount of rain may not be distributed over 80, 100 or 120 min. As a matter of fact, 3.60 in. did actually fall in 80 min. during this same storm.

Hufeland's Table II, (*Engineering News*, Aug. 31, 1916, p. 396) is similarly in error. This table shows only eight storms in New York City of 120 min. duration giving more than 2 in. precipitation, yet there was one storm lasting 100 min. during which 3.14 in. fell; two other storms lasting 80 min., which yielded 2.94 in. and 3.60 in. each, and two storms of 60 min. duration, which yielded 2.66 in. and 3.02 in. each. In other words, the record shows that 2 in. of precipitation may be expected in 120 min. once in about three years instead of once in nearly six years, as given in Hufeland's table.

In order to clarify this matter further, Fig. 5 has been prepared. The curve labeled "Horton-Maximum" is plotted from data given in Horton's paper, *Municipal and County Engineering*, July, 1919; and that labeled "Allen-Maximum" is plotted from Allen's paper in *Engineering News-Record*, April 7, 1921, both previously mentioned. The curve labeled "Meyer-100 yrs." is plotted from the weighted average of data given in Table 15 of my "Elements of Hydrology." New York City is in "Group 2" (p. 151, "Elements of Hydrology") but lies so near the borderline of this group of stations that the data in Table 15 for Group 2 are given a weight of 2, and those for Group 3 are given a weight of 1, in computing points for the "Meyer-100 yrs." curve.

It seems self-evident that the longer the time interval, the greater the amount of precipitation which may be expected with given frequency. It would not appear to require any argument to disprove the contention that 5.75 in. of rain may be expected in New York City in one hour as frequently as 3 in. may be expected in two hours.

Breakwaters of Three Types in One Lake Harbor

Rubble Mounds, Concrete Caissons and Rock Filled Pile Cribs for U. S. Naval Station at Great Lakes, Ill.

THREE types of breakwater construction are to be used for the protection of the new harbor for the U. S. Naval Training Station at Great Lakes, Ill., thus affording an interesting comparison of respective costs under similar conditions. These three types are as follows: (1) Rock fill between two lines of closely driven round piles, with a heavy concrete cap or superstructure poured in place; (2) stone rubble mound; (3) hollow concrete caissons sunk on a bed of broken stone, filled with stone and capped with concrete poured in place. The first type will be used in water from 4 to 14 ft. deep; the others will be in depths of 14 to 21 ft. A plan of the harbor, showing the positions of the different types of breakwater which are to be built, is given in Fig. 1.

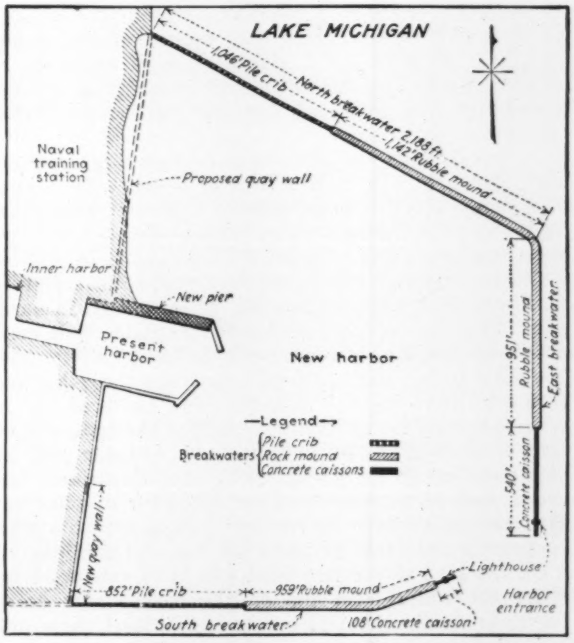


FIG. 1. BREAKWATERS OF DIFFERENT TYPES FORM LAKE HARBOR

Reasons for this combination of breakwater types at one harbor may be summarized as follows from a statement furnished by the engineers:

A. For shallow water, the rock-filled pile crib construction was considered to be the cheapest and to serve the purpose adequately, since there will be no heavy seas in such shallow depths. Further, experience indicates that these depths will be reduced by shoaling

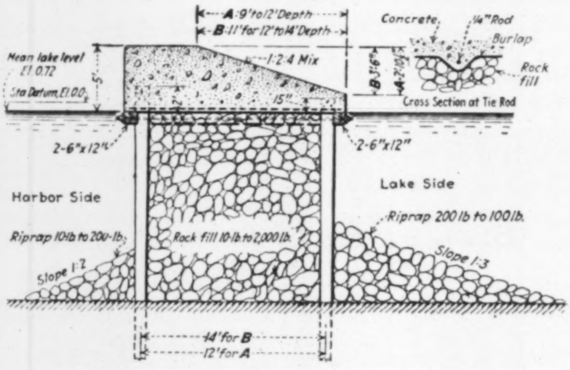


FIG. 2. PILE AND ROCK-FILL BREAKWATER

along the breakwater, particularly on the north side of the harbor.

B. For deep water, the high cost of timber made rock-filled crib construction prohibitive. The rough stone rubble mound has been found sufficient on the lakes in breaking up the waves and not allowing the passage of solid volumes of water such as would be carried over a smooth-faced breakwater. As a concrete caisson breakwater presents a smooth face to wave action is was not considered so efficient as the rubble mound.

C. For the harbor entrance, two factors governed the selection of concrete caisson construction: (1) With their nearly vertical sides they permit of the widest navigable opening for a given width of entrance, as compared with the slope of a rock mound; (2) a solid foundation was required for the lighthouses which mark the entrance.

Pile and Rock Fill Breakwater—For this construction, shown in Fig. 2, two rows of closely driven piles will retain a fill of loose rock in sizes weighing from 10 lb. to 2,000 lb. each. The distance between the two rows varies uniformly from 8 ft. at the shore end to 14 ft. at the outer end. A minimum penetration of 10 ft. is required, with, if possible, at least 2 ft. in hardpan. Each row of piles will have an outside wale composed of two 6 x 12-in. timbers bolted to every pile. Tie rods 8 ft. apart will pass between the piles and through the wales, the rock fill being hollowed out to form a trough under each rod, so that the rods will be embedded later in the concrete cap. Riprap will be placed outside of the piling, as shown. Experience has shown this to be important, as a number of piles not thus protected were thrown over in a recent storm, apparently due to scour along the toe of the piling.

On the lake side every third pile is to extend 15 in. above the water level and on the harbor side every fourth pile will extend 24 in. above this level, these pile heads being gained or grooved horizontally to form a bond with the concrete cap. Burlap will be laid over the rock fill to prevent the concrete for the superstructure or cap from escaping between the stones. The outer side of the superstructure will have a slope of 1 on 3.12. Piling and filling will be completed this season, but concreting will be left until the spring of 1922, thus allowing ample time for the fill to settle and become stable. The concrete superstructure will be constructed with joints at 50-ft. intervals, these joints being filled with four layers of felt.

Dense Concrete—In order to obtain as dense a concrete as possible for marine work, the specifications provide for a mixture of 1 part cement to 4 parts of coarse aggregate and a variable amount of sand. The coarse aggregate consists of stone passed by a 2-in. screen and retained on a ¼-in. screen. The amount of sand will be determined experimentally as follows: To a representative sample of the dry stone having a fixed volume (not less than 5 cu.ft.) will be added a fixed volume of dry sand, and after thorough mixing, the weight and volume will be determined. After repeating this process several times the proportion of sand that gives the heaviest mixture per unit of volume can be determined and this proportion used in mixing the concrete. These tests will be conducted every 24 hours, or as often as the characteristics of the stand or stone vary.

Forms are to be smooth and water-tight, and of such height as to protect the concrete from wave action while setting. Surfaces not in contact with forms must be brought up slightly above the edge of the forms, struck off with a long straight edge and thoroughly compacted and smoothed by working and trowelling. These surfaces will then be protected from the sun, rain or spray until they have attained their final set. Forms will not be removed sooner than 36 hours after the concrete has been poured, and the surface will be kept wet and protected from the sun for a period not exceeding five days after pouring. The object is to obtain a dense concrete having a smooth surface without sharp edges or projections.

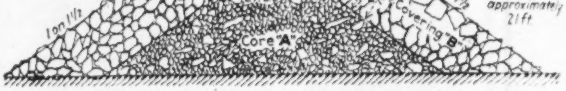

34'0" for North & East breakwater
25'0" for South breakwater
10'
El.+7.28 for North and East breakwater
El.+4.28 for South breakwater
Mean lake level, El.-0.72'
Station datum 0.0
Covering "D" Min. 5-Ton
Core "C" 500 lb. or over
El. 6.0'
5'
10'
1 on 1½
1 on 1½
Covering "B"
Core "A"
Max depth approximately 21 ft.

FIG. 3. ROCK RUBBLE MOUND BREAKWATER

Rock Rubble Mound Breakwater—In this construction, shown in section in Fig. 3, the core is of well graded quarry run stone with not to exceed 5 per cent of dust and having side slopes not exceeding 1 on 1½. Below the water level the slopes of the core are to be covered with stones weighing one ton or more, 85 per cent to weigh two tons or more. These will be deposited by derricks to a thickness of not less than 10 ft. On the top of the mound will be laid stones weighing 5 tons or more, with their long axes as far as possible perpendicular to the face of the breakwater, and with no surfaces projecting more than 10 in. outside or inside of the theoretical cross-section. These stones will be carefully set by derrick and will be wedged and blocked on the core by stones weighing not less than 500 lb. The covering stone above the water line is a hard dense and non-absorbent granite from Lohrville, Wis.; all other rock is a dense limestone from Lemont, Ill.

Concrete Caisson Breakwater—This construction is used only at the harbor entrance, where the rubble mound breakwater would greatly decrease the navigable opening of the harbor due to the long subsurface slopes of rough stones. Hollow reinforced-concrete caissons 54 ft. long, of the form shown in Fig. 4, will be floated into place and sunk on a bed of rock deposited in a dredged trench. This trench will be dredged to a depth of 4 ft. unless hardpan is encountered at a depth of less than 3 ft. below lake bottom, in which case the trench will extend only 1 ft. into the hardpan.

In the trench will be deposited rock varying in size up to 500 lb. to within 2 ft. of the lower surface of the caissons. On this will be 2 ft. of rock from 10 to 100 lb., well graded and leveled to uniform elevation. The subfoundation will be laid this season and the foundation and caissons placed next spring. The caisson foundation will be protected by rip-rap.

The caissons will be sunk by filling them with water and will then be filled with rock varying from ordinary minimum run-of-crusher size to 500 lb. stone, to within 3½ ft. of the top. After 30 days, the filling will be covered with 6 in. of lean concrete, on which will be the cap or superstructure of concrete, conforming to the specification described above for the superstructure of the pile and rock fill breakwater. These caissons will be built at the plant of the U. S. Army Engineers at Milwaukee, Wis., in accordance with the War Department standard design as prepared originally by Col. W. V. Judson, U. S. Corps of Engineers (see *Engineering News-Record*, Aug. 8, 1918, pp. 258 and 287). They will be delivered to the contractor in the harbor of Waukegan, Ill.

Unit Cost of Breakwaters—This combination design of harbor protection at Great Lakes affords an interesting comparison of the costs of the three types of breakwaters. The contract has been awarded on the lump sum basis, but the following is an estimate of the average cost per linear foot.

Type 1. Rock Filled Pile Crib—Piling, timber, rods, etc., $35.82; rock fill, $24.08; concrete cap, $43.35; total, $102.25.

Type 2. Rock Rubble Mound—Core stone A, $37.84; core stone C, $23.92; cover stone B, $91.24; cover stone D, $71.50; total, $224.50.

Type 3. Concrete Caisson—Dredging, $6.90; foundation, $31.98; rip rap, $17.84; filling, $28.70; placing, $11.30; concrete cap, $34.78; caisson (furnished by U. S. Government), $90.75; total, $222.25.

Studies for the harbor design at Great Lakes, the determination of the most suitable types of breakwater and plans and specifications for the work were prepared by Commander Walter H. Allen, Civil Engineer Corps, U. S. Navy, public works officer of the Naval Training Station, and were approved by Rear-Admiral C. W. Parks, chief of the Bureau of Yards and Docks, U. S. Navy Department. In May, 1921, the contract was awarded to the Great Lakes Dredge & Dock Co., Chicago, at a lump sum price of $967,326. The concrete caissons are estimated to cost $4,900 each. The cost of the breakwater complete will approximate $1,026,126.

Construction work is under the direction of Commander Allen, public works officer of the training station, whose assistant is Lieutenant Henry Niemann, civil engineer corps, U. S. Navy.

Highway Bridge Fire Protection Under Study

Fire protection principles for highway bridge floors are being studied by a joint committee formed under the auspices of the American Wood Preservers' Association. George W. Booth, chief engineer of the National Board of Fire Underwriters, 76 Williams St., New York, is chairman of the committee, and E. F. Kelley, bridge engineer, U. S. Bureau of Public Roads, Washington, is secretary. At the initial meeting, held at New York on Dec. 13, bridge-floor fire experiences and various means of protection were canvassed. A study of current floor designs from the fire-protection standpoint was decided upon, to reveal the principal points of weakness of floors from the fire standpoint. In connection herewith the committee desires information and opinions from engineers connected with the design and maintenance of highway bridges as to start and spread of floor fires. It is expected that the influence of creosoting practice on the fire risk will be taken up later. The work to be done will, in the committee's opinion, bear mainly on long bridges, in which the spread of fire is an important factor in the result, but it is thought that the principles developed will also prove of value in application to smaller bridges. The committee includes C. M. Taylor and L. T. Ericson of the American Wood Preservers' Association, F. E. Schmitt, *Engineering News-Record*, and D. F. Holtman, National Lumber Manufacturers' Assn.

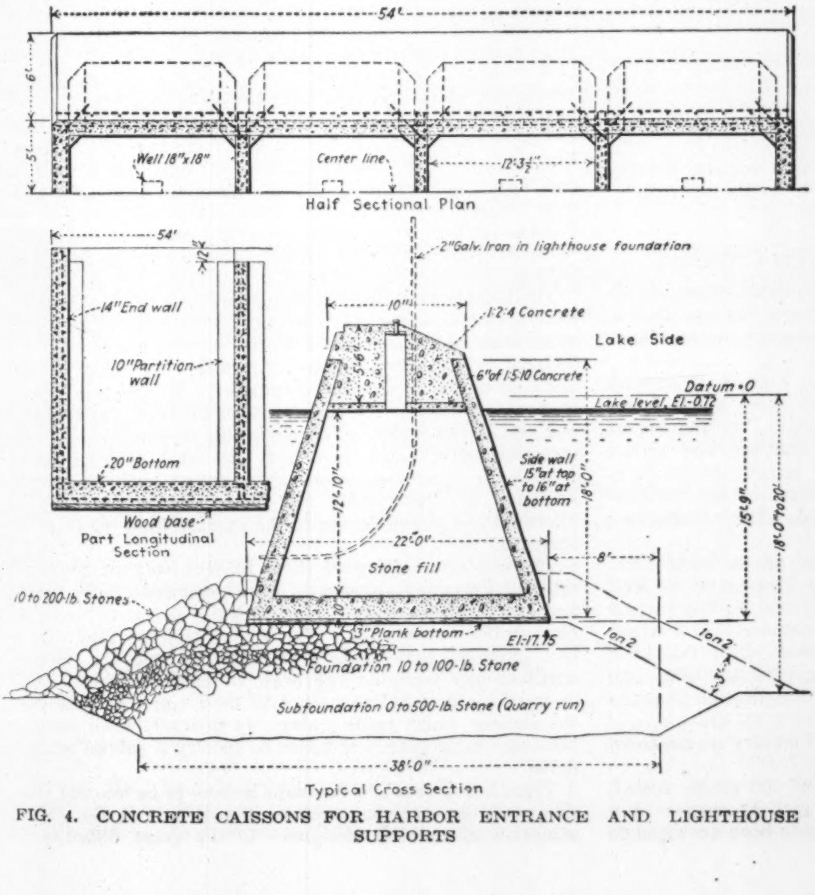


FIG. 4. CONCRETE CAISSONS FOR HARBOR ENTRANCE AND LIGHTHOUSE SUPPORTS

LETTERS TO THE EDITOR

This department aims to be a forum for the discussion of the views of engineers and contractors. The range of interest should be as wide as possible. Contributors are, therefore, asked to make their letters short.

One Example of Wage Reduction

Sir—With our publications full of the questions of lower wages and lower building costs it seems that the question of a living wage for the construction engineer has been put in the background.

These men, always underpaid, are now forced to accept cuts in salary out of all proportion to the increases, however slight, which they received during the war.

The writer, like many others, served in the Engineer Corps abroad during the war, returned in 1919, located in a new job, only to be laid off when the depression came, and accepted an offer to go into the field at a cut of about 40 per cent, being told that "the war is over" and that wages had returned to a pre-war status. Imagine then our chagrin to see the weekly pay rolls still carrying carpenters at $60 a week, bricklayers, masons and foremen running anywhere from that figure up to $70 per week and getting it steadily. Is it justice to hold a man who has given four or five years of his life to the study of his profession and as many more to preparing himself in experience, to a salary of $40 or $50 a week because he is not backed by a labor union? And on top of this to hold him responsible for the acts of omission and commission of the various foremen whose weekly envelopes put his to shame.

The woods are full of good men out of work but that is no reason that those who are fortunate enough to be working should not receive a salary commensurate with their ability and responsibilities. The contractor of today is pointing an accusing finger at the labor unions as the cause of the high building costs and on the other hand is giving a pretty good indication of what he would do to them if they had no union by the way in which his engineering forces are cut to the bone.

The older and wiser heads of the great engineering societies frown on any suggestion of their giving support to a demand for a living wage for the younger members of the profession and intimate that we are becoming too commercial and losing sight of the definition of a true engineer. And yet the pot must boil and without stirring the broth is certainly mighty thin. "EX SERVICE."

Brooklyn Theater Roof Trusses Criticized

Sir—The collapse of the roof of the theater building in Brooklyn, on Nov. 29, as reported in your issue of Dec. 8, p. 9, is—contrary to the opinions expressed—rather due to faulty design than to poor erection work.

The roof trusses were not of the regular type with straight bottom chords, but of one of those many forms that appear occasionally, when triangular, rectangular or trapezoidal trusses do not suit the purpose and arched trusses are found to be too difficult to design. In the form chosen for the trusses the elastic nature of the material seems to have been entirely overlooked. The construction as well as the result point to this.

When trusses of such forms are laid up on brick walls, one end is preferably placed on a roller bearing on the wall to allow the changes in length of the truss for the various loads to take place without undue resistance. If one end of such roof trusses rests on a girder which can yield laterally between its points of support, while the other end rests on a brick wall, the changes in length will probably lead to a lateral deflection of the girder at the top, and it surely will if the other end of the roof trusses are anchored to an unyielding brick wall.

Had the column on which one end of the girder rested, been connected to a bearing on its pier by means of a longitudinal pin, and had the roof trusses been anchored to the wall, the structure would probably still be standing, but as the column rested squarely on its foundation a considerable resisting moment due to the load was developed at the foot when the lateral deflection of the top of the girder took place. This resisting moment caused stresses in the column and its extension, a strut rigidly connected to the column and serving as support for the roof truss. Anchor bolts at the foot of the column could not have prevented the development of such stresses.

The starting point of the failure seems to have been at this vertical strut. Its buckling under the combined stresses from the load of one-half of the end truss and from the aforesaid bending moments let the end of the truss down, and this truss pulled the column and the end of the girder along in its fall and inward, the latter rotating about the support at the other end. The damage to the brick wall at this point is rather due to the reaction from the heavy blow when the end of the girder struck the ground than to anything else. The damage to the piers elsewhere is probably entirely due to the pulling down of the trusses. Such piers are not ordinarily expected to stand abuse of this sort. The diagrams shown in connection with your description of the wreck suggest a mode of failure as indicated above. Had there been a kneebrace at the end truss, or had the column been carried up to the top of the longitudinal truss, the failure would probably have been avoided.

Apparently there are several errors in the design. They are easily enough spotted when one's attention is drawn to their presence, but somehow they seem to have a chance to slip by unnoticed here and there occasionally for one reason or another.

New York, Dec. 17. E. R. T. BERGGREN.

Must Cover Reinforcement Well

Sir—I read the article in *Engineering News-Record*, Dec. 8, 1921, p. 924, regarding the deterioration of concrete bridges in Nashville and as I was passing through that city recently I stopped off and took a good look at these structures. It seems to me that your correspondents have not placed sufficient emphasis upon the principal lessons to be learned from the condition of these structures.

The most glaring defect is the insufficient covering of reinforcing steel. In hundreds of cases of spalling observed by the writer, the very apparent cause was the fact that the reinforcing members were placed from ⅛ in. to 1 in. from the surface of the concrete. Such a condition as this is sufficient explanation of all the troubles although there may be contributing factors. There was not a single instance that the writer could find in the course of his superficial investigation where spalling occurred due to any other cause.

The lessons to be learned from this fact are lessons that have been taught for years by many such defects in various structures, of various materials in various places, i.e., the disigner must so proportion the members as to allow sufficient room for reinforcing members to be properly placed without coming nearer than 1½ to 2 in. from the concrete surface at any point. The engineers responsible for construction must make sure that no steel, whether main reinforcing members, secondary members such as stirrup and ties, or construction members such as wire ties, is allowed to be placed nearer to the surface than the distance specified.

The concrete railing of these bridges was composed of crushed limestone aggregates of a somewhat flaky shape, and the surfaces were scrubbed while green in order to remove the cement film. The writer believes that this is bad practice, that it is permissible to use the washed surfaces only when an aggregate of hard rounded pebbles or particles is usual so as not to form small pockets over the surface which holds water. In general, when using a limestone aggregate it is better to specify a rubbed surface finish.

These two points are the main lessons to be learned from this particular case but perhaps it may be well also to call attention of concrete designers to the great difficulty of obtaining waterproof concrete in field operations, and the necessity of getting planty of good concrete around all reinforcing members, especially between reinforcing members and surfaces exposed to an atmosphere charged with corrosive gases.

There is one more point well illustrated by this case as well as by many others examined by the writer; that is the necessity of covering properly all secondary members. I have seen instances where the end of a ¼-in. tie, for column rods, came so close to the concrete surface that rust started at this exposed end, causing a very small piece of concrete to be spalled off by the expanding rust; then the rusting pentrated deeper and deeper, spalling off larger and larger pieces until the main reinforcing was reached and corrosion started on it, spalling off the protecting concrete regardless of its thickness or its physical condition. The only way to prevent this progressive corrosion is to make sure that it don't start. **Wilbur J. Watson.**

Cleveland, Ohio, Dec. 15.

Technical Supervision of Construction Required on Public Work

Sir—In your editorial on "Engineers or Builders," Dec. 8, p. 923, I note the sentence, "At any rate, as yet no community, no city or state, has made professional supervision of building a legal requirement." I would call your attention to Section 19 of the Michigan registration act, which reads as follows:

> Sec. 19. After the first day of March, 1920, neither the state, nor any county, township, municipality or village, shall engage in the construction or maintenance of any public work of an architectural or engineering character, for which construction or maintenance, the plans, specifications and estimates shall not have been prepared by a registered architect or a registered engineer under this act with qualifications appertaining to such work, *and the construction of which is not supervised by such a registered architect or registered engineer;* provided, That nothing in this section shall be held to apply to items of maintenance, repair or construction wherein the contemplated expenditure for the completed project does not exceed two thousand dollars.

This does not wholly vitiate the correctness of your statement, but it goes a little way toward showing a tendency toward better things. **Gardner S. Williams,**

Ann Arbor, Mich., Dec. 19. Consulting Engineer.

Sir—Your editorial in the issue of Dec. 8, p. 923, under the caption "Engineers or Builders?", states—"as yet no community, no city or state has made professional supervision of building a legal requirement." Alas! this appears too true, in spite of the fact that engineers' registration laws have been enacted in a number of states.. The general intent of licensing engineers undoubtedly is to protect the public from accidents and bad construction by legally requiring the services of competent engineers. Drafts of registration bills have been drawn, particularly by the American Association of Engineers, in which design and supervision of construction by registered engineers were requirements. But when the bills were entered, the proponents evidently lost nerve, cut out the essential part, and generally provided only that no one should call himself a registered engineer unless he was one. Thus the chief purpose of registering engineers is lost and the result has simply been to force other states to register engineers, first for reciprocity to protect their own engineers from being discriminated against, and second to keep out incompetents leaving states that have registration laws. Nothing is worth doing unless fearlessly done right. May we not hear from engineers from the different states the history of this important point: the legal requirements of professional design and professional supervision of construction?

The same article states that some building officials are advocating licensed builders but that no practical trial has been made. The city of Boston requires that no construction work shall be done unless a man is on the job who is licensed to take personal charge or control of the work. John F. Hickey is chairman of the board of examiners. Licenses are issued to builders to construct different classes of buildings as stated in the license, and as determined in each case by the board after considering a written statement of experience and work done and an oral examination. Licenses may be revoked on account of complaints against a man for failure to perform his duties properly, and are renewable each year after an examination as to what the licensee has done and any complaints against him. A hardship has developed in the requirement that the licensed master builder must remain continually on the job, even though it were a small job in some one branch of the work that could be left in charge of a competent foreman. To obviate this, licenses are now granted also for different trades.

While it is as advisable to retain an engineer or architect to supervise construction and design as it is to retain a doctor for an operation on the body, so also it is the same advantage to have tried and licensed builders (and even foremen) as to have a trained nurse to carry out the doctor's orders. The engineer may give instructions and advice, and condemn bad workmanship, but undoubtedly good workmanship rather than making good the bad workmanship is most economical and is essential and can be best attained by the experienced workman under the control of an experienced foreman.

Yet engineering is required for construction as well as good and proper workmanship. Your advocating compulsory supervision of building work by the engineer or architect is sound policy. Massachusetts (including Boston) lacks that. Boston's licensed builders undoubtedly get good workmanship and the work is duly inspected by city building inspectors. Besides the designs are inspected by engineers of the building department. But compulsory supervision of construction by an engineer or archcitect is not required and is often neglected by an ignorant owner who is penny-wise and pound-foolish and employs an engineer or architect only to design the work, and that simply because of the requirement of the building department for satisfactory plans.

Failures in buildings occur generally during construction, and more often are chargeable to the lack of a competent construction engineer, than to poor workmanship. Therefore, for the safety of the public the laws should enforce employing the services of a competent engineer or architect for the supervision of construction as well as for the designing.

After all is done, accidents will happen in the best regulated families. Often designs are made without a view to the practical operation of construction. The deflecting of a long truss when the load is being applied may throw an eccentric stress on a column and cause the column to kick out and throw the whole structure, unless it has been designed for this stress. And yet such a design may be passed by a building department engineer as satisfactory to hold, if the building were completed.

But who has to pay the cost of examinations, and registrations? The poor engineer! **Frederick O. Lewis,**

Boston, Consulting Architect and
Dec. 17. Construction Engineer.

Actual Stresses In British Impact Tests

Sir—Referring to your extremely interesting report on certain impact tests for British bridges, Oct. 20, pp. 642-645, the writer would like to point out one or two features suggested by a study of the table of results.

Because of the fact that in our bridge specifications and practice the increment for impact, etc., is added to the *calculated static* live-load stress and not to any recorded stress, the attached supplementary column A has been figured to show the ratio between column 14 of the original table, which gives the maximum recorded live-load stress, and column 12, the calculated static live-load stress. This is the only set of figures which, strictly speaking, can be compared with the results obtained from any of our actual formulas. Examining this table we find at once the effect of the phenomenon noted in the text of your article, that the live-loads as figured, even from definite concentrations, very seldom occurred in the members. **Out of 59 cases, 43 show the sum of live-load** plus increment to be less than the calculated static live-load. One case is obviously a freak; it is a web measurement, and a great deal more information would be required in order to properly appraise its significance. One other case shows an increase of 92%, two show about 50%, two show about 35%, and the remaining ten are between 5% and 20%. Plotting these figures on your Fig. 2, p. 644, gives quite an uninterpretable series of points, palpably insufficient for the derivation of any formula.

LIVE-LOAD STRESS RATIOS AND UNIT STRESSES IN BRITISH IMPACT TESTS

A	B	C
Col. 14/Col. 12 Actual/calc't'd	Col. 11 + Col. 14 Total Actual Unit, Lbs./Sq.In.	Col. 11 + Col. 12 + imp. = 300/300 + 1 Designing Unit, Lbs./Sq.In.
0.64	6,100	15,100
0.84	2,800	6,100
0.66	7,400	18,900
0.64	6,700	17,800
1.92	7,400	7,600
1.36	5,300	7,600
0.62	5,600	14,900
0.40	4,200	17,600
0.61	4,200	11,900
0.55	3,800	11,900
1.31	5,300	7,500
0.82	6,700	14,600
0.61	3,900	8,000
0.75	7,200	18,100
0.72	6,500	16,500
0.58	13,400	30,600
1.48	8,800	11,400
0.94	8,400	15,900
1.07	7,600	13,300
1.05	5,800	9,500
1.18	5,400	8,400
0.75	5,800	11,800
1.12	4,300	6,400
0.79	6,200	12,800
0.83	10,400	19,200
0.96	2,500	4,400
0.89	6,700	11,800
0.83	4,700	9,800
0.96	5,500	9,900
1.04	4,700	7,300
0.66	7,600	16,700
0.30	4,900	16,700
0.17	4,700	11,200
0.34	6,700	14,300
0.89	5,500	8,900
*3.37	4,000	2,500
0.98	5,300	8,200
0.68	8,800	17,300
1.04	10,300	16,100
0.78	9,900	19,000
0.59	9,200	13,600
1.02	8,700	11,100
0.63	6,600	12,700
0.48	3,700	8,200
1.05	5,900	8,300
0.75	2,700	4,500
1.51	7,100	7,900
0.73	9,700	15,700
1.18	9,800	12,500
1.12	12,400	17,400
0.66	6,600	12,900
0.82	6,900	11,300
0.50	5,400	11,300
0.50	8,300	18,800
0.40	6,500	16,400
0.75	7,400	11,800
0.57	7,600	14,400
0.96	7,900	11,400
0.48	6,900	14,100

Another interesting point is provided in the determination of the actual total unit stresses, using the calculated dead-load unit and the maximum recorded live-load, including increment. Column B of the table herewith shows these units in pounds per square inch. They seem distinctly safe.

An examination was also made of the unit stresses as they would appear on a stress sheet, using the calculated dead-load unit, calculated live-load unit, and an increment for impact given by the Schneider formula—300/300 + L. Column C shows these resulting "working" or "designing" stresses, and reveals a remarkable range, running from 4,500, excluding the freak case before mentioned, to 30,600 lb. per sq.in. As these live-loads are supposed to be produced by "one or two locomotives, typical 2-cylinder passenger type, chosen from approximately the heaviest on each system" they must be reasonably close to the specified loading for which the bridges are figured, and the units in column C would indicate a very wide difference in practice, and would serve to strengthen any argument for a certain measure of standardization in design, or at least standardization in calculation methods.

If there is one result more outstanding than any other from a study of this article and the accompanying table it is that, until we know a great deal better than we would seem to know at present how our live-loads are actually taken up, it is mis-spent zeal to keep continually revising and refining our impact allowance.

Montreal. P. L. PRATLEY,
Oct. 26. Consulting Engineer.

Assisting the Geological Survey

Sir—I would like to call the attention of all railway engineers to the article by Geo. W. White, in the *Engineering News-Record,* for Nov. 10, p. 764, regarding the methods adopted by the Southern Ry. for its resurveys, particularly the statement that all lines were referred to true north as determined by observations on Polaris.

For some time past, the U. S. Geological Survey has been conducting an educational campaign in its endeavor to induce railway and highway engineers to refer all survey lines to true north rather than to magnetic north. If true bearings for railway and highway alignment surveys were available the Geological Survey could, without further field traverses, compute accurate geographic positions from them and use them for the control of topographic maps, thereby saving from 5 to 10 per cent in the cost of completing the topographic mapping of the United States. This is, therefore, a matter of no little importance especially in view of the insistent demand for economy and the small appropriation made by Congress for map work.

The Geological Survey has prepared instructions for azimuth observations on the sun and on Polaris, which it is glad to send free to engineers, engaged in railway or highway surveys. If engineers generally knew how easy it is to make such observations when proper methods are employed, more would attempt it. When the air is reasonably clear Polaris can be seen with a good transit telescope for several hours before sunset and by taking advantage of this fact one objection to the measurement of true azimuths can be removed. C. H. BIRDSEYE,
Chief Topographic Engineer,
Nov. 14, Washington. United States Geological Survey.

Automobiles Kill More Than Typhoid Census Figures Show

Automobiles caused more deaths than did typhoid fever or railways in the registration area of the United States in 1920, according to the Bureau of the Census. The 1920 figures are: Automobiles, 9,103; typhoid fever, 6,805; railways, 6,426. The respective mortality rates per 100,000 are 10.4, 7.8 and 7.3. The registration area in 1920 included 34 states, the District of Columbia and 16 cities in non-registration states, with an estimated mid-year population of 87,486,713 or 82.2 per cent of that of the whole United States. Nebraska, with an estimated mid-year population of 1,301,737 was added to the area in 1920. It is also interesting to note that the registration-area typhoid mortality in 1919, despite the lower population, was 7,860, a rate of 9.2 per 100,000 as against the 6,805 and 7.8 rate for 1920, which is noted above.

HINTS FOR THE CONTRACTOR

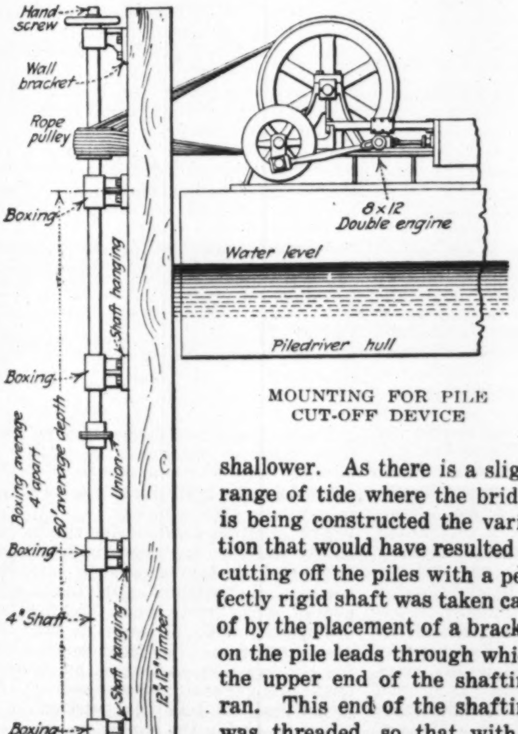
Hoe With Straightened Blade Spaces Paving Brick

USING lugless brick, in paving in Scott County, Iowa, even joints and proper spacing, to get full penetration of the bituminous filler, were secured by laying the bricks rather loosely and then spacing them by eye, using a hoe with a straightened blade. An ordinary hoe was used, with its blade bent by a blacksmith, straight out in line with the handle. The McCarthy Improvement Co., Davenport, Iowa, were the contractors.

Footing Piles Cut Off 60 Ft. Below Water Surface

BY FASTENING a 12 x 12-in. timber between the leads of a piledriver and attaching to it at intervals of about 4 ft. boxing which carried a 4-in. shafting, the McLean Contracting Co., of Baltimore, who are building the Long Beach bridge which connects Wreck Lead with Long Beach, Long Island, were able to cut off the footing piles for one of the central piers 60 ft. below the surface of the water.

The device used is shown in the accompanying sketch. It is not particularly new expect in that an unusual depth was necessary at which the piles were to be cut off. Piles of a length of 85 ft. were used and inasmuch as the penetration was around 25 ft. the piles could be used again on pier footings where the water was much shallower. As there is a slight range of tide where the bridge is being constructed the variation that would have resulted in cutting off the piles with a perfectly rigid shaft was taken care of by the placement of a bracket on the pile leads through which the upper end of the shafting ran. This end of the shafting was threaded, so that with a hand screw it could be raised or lowered to coincide with the rise and fall of the tide.


Hand-screw
Wall bracket
Rope pulley
Boxing
Boxing
Boxing
Boxing
Shaft hanging
Shaft hanging
Union
Boxing average 4' apart
60' average depth
4" Shaft
12"x12" Timber
42" Saw
8x12 Double engine
Water level
Piledriver hull

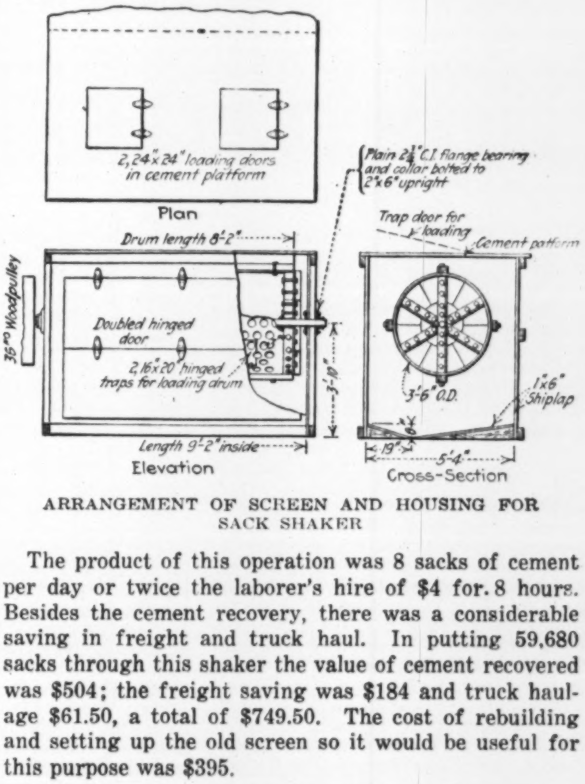
MOUNTING FOR PILE CUT-OFF DEVICE

At about the mid-point of the shafting was placed a union so that sections could be taken out or put in as desired.

The Long Beach bridge is being constructed by Nassau County, N. Y., under the supervision of W. Fred Starks, county superintendent of highways.

Homemade Sack Shaker Saves Cement

A MOTOR-OPERATED rotary rock screen salvaged from other work was recently adapted by engineers of the San Joaquin Light & Power Corporation to serve as a cement sack shaker. One laborer operated the device, dividing his time between loading and unloading the shaker, tieing up the sacks and gathering up the cement recovered. Ordinarily he handled about 800 sacks per day. The sacks were put in the screen in lots of 50 and each lot was turned about 30 minutes at the rate of 50 r.p.m.


2, 24"x24" loading doors in cement platform
Plan
Plain 2¼" C.I. flange bearing and collar bolted to 2"x6" upright
Drum length 8'-2"
36" Woodpulley
Doubled hinged door
2, 16"x20" hinged traps for loading drum
3'-10"
Length 9'-2" inside
Elevation
Trap door for loading
Cement platform
3'-6" O.D.
1"x6" Shiplap
19"
5'-4"
Cross-Section

ARRANGEMENT OF SCREEN AND HOUSING FOR SACK SHAKER

The product of this operation was 8 sacks of cement per day or twice the laborer's hire of $4 for 8 hours. Besides the cement recovery, there was a considerable saving in freight and truck haul. In putting 59,680 sacks through this shaker the value of cement recovered was $504; the freight saving was $184 and truck haulage $61.50, a total of $749.50. The cost of rebuilding and setting up the old screen so it would be useful for this purpose was $395.

New Tests of Timber Columns in Progress

Column tests for the purpose of determining the effect of density, and defects such as knots, checks, cross-grain, etc., on the strength of structural columns of Southern pine and Douglas fir have just been started at the Forest Products Laboratory, Madison, Wis., under the direction of J. H. Newlin of the laboratory and D. F. Holtman of the National Lumber Manufacturers' Association. The experiments will cover a period of four years, and the data will be used as a basis for recommending safe working stresses for structural columns.

CURRENT EVENTS IN THE CIVIL ENGINEERING AND CONTRACTING FIELDS

NEWS OF THE WEEK

New York, December 29, 1921

Road Builders Announce Convention Program

Technical Papers Cover Bituminous and Concrete Types, Financing, Traffic and Research

The American Road Builders Association has announced the following tentative program of technical papers for its twelfth annual convention to be held in the Coliseum, Chicago, Jan. 16-20:

Bituminous Roads — "Bituminous Foundations": Hugh W. Skidmore, Chicago Paving Laboratory; "Selection of Bituminous Wearing Course": C. M. Pinckney, chief engineer, Bureau of Highways, Borough of Manhattan, New York City; "Utilization of Local Material for Mineral Aggregate": Major W. A. Welch, chief engineer, Palisades Interstate Park Commission, New York; "Asphalt Specifications": L. M. Law, chief chemist, New Orleans Refining Co.; "Specifications of Mineral Aggregates": Roy M. Green, manager, Western Laboratories, Lincoln, Neb.; "Controversial Construction Requirements in Specifications": Bruce Aldrich, Toronto, Canada; "A Simple Graphic Method of Proportioning Sands for Sheet Asphalt Mixtures": Prevost Hubbard, chemical engineer, The Asphalt Association, New York City.

Cement Concrete Roads—"The Selection of the Mineral Aggregate for a Portland Cement Concrete Road": John H. Mullen, chief engineer, State Highway Department of Minnesota; "Design of Concrete Roads for Heavy Traffic": W. D. Uhler, chief engineer, Pennsylvania State Highway Department; "Inspection and Control of Materials for Concrete Roads": R. W. Crum, testing engineer, Iowa State Highway Commission; "Importance of Surface Finish and Methods of Control": H. E. Breed, consulting engineer, N. Y. City; "Single Track Concrete Roads for the Average County": P. C. McArdle, county highway superintendent, Vermilion County, Danville, Ill.; "Pavement Widths for Highways Serving Large Cities": Edward N. Hines, chairman, Board of County Road Commissioners, Wayne County, Detroit, Mich.

Common Roads—"Common Roads": T. J. Wasser, state highway engineer, Trenton, N. J.; "A Systematic study of Gravels for Road Purposes": Wallace F. Purrington, chemist and testing engineer, New Hampshire State Highway Department.

Highway Financing—"The Proposed Wisconsin Plan of Highway Finance": A. R. Hirst, chief highway engineer, Wisconsin Highway Commission; "The Minnesota Experience in Highway Financing": C. M. Babcock, commissioner of highways, Minnesota Highway Dept.

Highway Transportation — "Truck Overloading, Its Relation to Road Construction and Maintenance": J. G. McKay, Professor of Economics, University of Wisconsin.

Highway Research — "Highway Research": W. K. Hatt, Professor of Engineering, Purdue University and Director of research, National Research Council; "The Illinois Experimental Road": Clifford Older, chief highway engineer, Department of Public Works, Illinois; "Highway Researches and What the Results Indicate": A. T. Goldbeck, U. S. Bureau of Public Roads.

Miscellaneous — "The Highway Outlook": Thomas H. MacDonald, chief, U. S. Bureau of Public Roads, Washington, D. C.; "Cost Keeping on Highway Construction": A. R. Losh, Bureau of Construction, U. S. Bureau of Public Roads, Washington, D. C.; "Development of Small Stream Valleys into Traffic Routes": Jay Downer, chief engineer, Bronx Parkway Commission, New York; "Uniform Legislation as Affecting Highway Traffic and Highway Transport": D. C. Fenner, Manager, Public Works Department, International Motor Co., N. Y. City; "Construction and Maintenance of Earth Roads": George E. Johnson, Secretary of Public Works, Lincoln, Neb.; "Highway Construction on the Pacific Coast": Herbert Nunn, State Highway Engineer, Salem, Ore.; "Co-operation of All Parties Interested in the Construction of a Modern Road": William Ord, manager, paving department, Lakewood Engineering Co., Cleveland; "The Business End of a State Highway Department": Charles M. Upham, state highway engineer, North Carolina State Highway Commission; "The Highway Contractor's Problems": **H. H. Wilson, Winston Bros., Muncy, Pa.**

Building Code May Prohibit All Non-Fireproof Hospitals

The Wisconsin State Industrial Commission is considering an amendment to the state building code which will require all hospitals hereafter constructed to be of fireproof construction. At present only hospitals of three or more stories in height must be fireproof.

Hoover on Colorado River Commission

The President has appointed Secretary of Commerce Hoover as federal chairman of the Colorado River Commission, created by Congress and the States of California, Arizona, Nevada, Utah, Colorado, Wyoming and Montana. It is the duty of the Commission to determine a plan for the control of irrigation, power and flood protection on the Colorado River.

Chile Halts Public Works

Owing to the high rates in effect on Chilean railroads serious attention is being given to the construction reports in the agricultural sections of southern Chile, according to cable advices to the U. S. Department of Commerce. The same cable announces that road-building funds have been exhausted and that the Government is retrenching and will undertake no new public works.

California Water Commission Has New Head—Moves to Sacramento

Paul Bailey formerly a deputy of the California Water Commission and more recently assistant to Austin B. Fletcher, director of the State Board of Public Works, has been named chief of the division of water rights succeeding Chas. H. Lee. The position held by Mr. Lee for two years was declared vacant by Mr. Fletcher on December 1 after a difference of opinion had arisen over the advisability of moving the headquarters of the water rights division from San Francisco to Sacramento.

The reorganization of California state departments which made the water commission a subdivision under the jurisdiction of the Board of Public Works went into effect last July and was reported in *Engineering News-Record*, July 28, p. 166. Mr. Fletcher retains his position as chief engineer of the state highway commission at the same time that he heads the Board of Public Works.

Engineering Employment Shows Year-End Pause

A year-end pause in engineering employment is apparent from a survey of conditions made by the employment department of the American Association of Engineers Dec. 1, based on reports from 25 widely separated localities. In comparison with reports and surveys of other years a lull in the demand for engineering services is usually experienced at this time with a resumption of activities after Jan. 1. From the seasonal standpoint the greatest demand for engineers comes during the spring and summer.

During November 12 per cent fewer applicants registered for employment than during the previous month. There were 20 per cent less placements and 13 per cent less positions received in November than the previous month. The following table shows the trend:

	Nov. 1921	Oct. 1921	Nov. 1920
Applicants for employment.....	1,661	1,877	1,763
Positions received.	335	384	717
Men referred.....	1,639	1,731	3,506
Men placed.......	193	240	313

The average monthly salary of positions filled in November was $192, or $6 more than the last month. For the same month last year the average salary was $201 a month.

The greatest demand during the last month was for engineers in the industries and designing offices, including mechanical draftsmen, mechanical engineers, structural and architectural draftsmen, with a large demand for map draftsmen. The least demand was for construction engineers, superintendents and general civil engineers. This is natural, as less construction is in progress during the winter months. At this season of the year the drafting field is the most prominent with the structural lines leading, although there is a healthy demand for mechanical engineers.

Minnesota Gets Low Prices on Winter Road Work

Notably low prices on grading, gravel surfacing and paving were received by the Minnesota State Highway Department, as announced by C. M. Babcock, commissioner, on "winter work" trunk highway projects for which bids were opened Nov. 29 and 30 Dec. 2. On the seven grading jobs advertised, a total of 76 miles, bids for excavation ran from 19 to 27c per cubic yard, with an average of 23c as compared with a range of 23 to 40c, and an average of 37c for last summer's work. On 25 graveling projects, totaling 260 miles, bids ran from 16 to 28c per cubic yard per mile haul, about one-half of the prices obtained for the summer program. On the one job of paving, a 25-mile section of concrete, the low bid was less than $24,000 a mile as against $27,000, the lowest of last summer. Final awards are awaiting rechecking.

Move to Span Pend O'Reille River

A movement to span the Pend O'Reille River, in Eastern Washington, with a $200,000 concrete and steel bridge has been undertaken by the communities of Priest River and Sandpoint, Idaho. The Interstate Toll Bridge Co., with an authorized capital stock of $200,000, has been formed, and the bridge will be constructed at Newport. It will provide a new route for tourists who branch off the Yellowstone Trail, and will open a new route from Missoula to Spokane, carrying traffic on not less than six important highways.

The bridge will be 1,224 ft. long, having five steel spans, resting on six reinforced concrete piers. It will have a width of 20 ft. in the clear, and will give a 65-ft. clearance, allowing free passage of vessels and obviating a draw span. The plans for the structure have been drawn by the Union Bridge Co., of Seattle, the firm now building the Kennewick-Pasco bridge, and plans have been approved by the engineers of the War Department. The bridge will replace the present unsatisfactory ferry service on the river.

Acceptance Seattle Water Bonds Brings Storm of Protest

The Seattle city council recently accepted a bid for $2,000,000 water extension revenue bonds, which has brought a storm of protect from Mayor Hugh M. Caldwell, superintendent of water L. B. Youngs and business men of the city. The bonds carry interest at 6 per cent and the bidders offer to pay par and accrued interest. The bid is alleged to have been secretly accepted by the council without the approval of the superintendent of water, or of Mayor Caldwell, and it is declared will mean a loss of $60,000 to $100,000 to the water department. Mayor Caldwell expressed the belief that a public sale of the bonds would have brought the city a premium of from one to five per cent above par value.

The bonds are part of a $6,000,000 issue authorized several years ago to finance extensions to the municipal water system, including construction of an impounding basin at Swan Lake, a pipe line from there to the city, and a proposed reservoir at Volunteer Park. It is considered likely that the sale may be declared void and the bonds placed in the open market.

California Water Resources Board Begins Statewide Inventory

The California state legislature in June, 1921, appropriated $200,000 for a statewide survey of water resources to be made under the direction of the state department of engineering. The bill instructs the engineering department to "determine the maximum amount of water which can be delivered to the maximum area of land, the maximum control of flood waters, the maximum storage of waters, the effect of deforestation and all possible and practicable uses for such waters in the state of California."

The bill also requires the state engineering department to "determine a comprehensive plan for the accomplishment of the maximum conservation, control, storage, distribution and application of all the waters of the state and to estimate the cost of constructing dams, canals, reservoirs, or other work necessary in carrying out this plan and to report the result of such investigations with recommendations not later than the legislative sesion of 1923."

Queenston-Chippawa Power Plant Opened

On Dec. 24, water was admitted for the first time into the nine-mile canal leading around Niagara Falls to the Queenston power plant of the Hydro-Electric Power Commission of Ontario. As this was written it had reached a depth of 40 ft. on the forebay side and the ceremony of turning over the first 55,000-hp. turbine was set for 2 p.m., Dec. 28. Details of the first step in the completion of the great Niagara power development will appear in a later issue.

Plan Is Comprehensive

In pursuance of a provision of the bill, the Governor appointed a consulting board of citizens to serve in an advisory capacity. This board consists of H. D. McGlashan, U. S. Geological Survey, San Francisco; B. A. Etchevery, professor of irrigation engineering, University of California; H. Hawgood, consulting engineer; R. B. Marshall, Peter Cook, J. C. Forkner, and O. B. Tout. This advisory board has held public hearings in several parts of the state to permit residents to express their views with regard to the proposed study and recommendations.

Comprehensive plans are being worked out for the actual compiling of the inventory of water and power resources. All available stream flow and runoff records will first be listed. To aid in this work thirteen engineers of Sacramento, San Francisco and Los Angeles have been named to aid in gathering data in public and private offices that have a bearing on the desired records. When all existing information has been collected, it is planned to put reconnaissance survey parties in the field to gather the additional data needed. The first field party is already at work.

F. C. Scobey, hydraulic engineer, irrigation division, U. S. Bureau of Public Roads, has been "loaned" to the state department of engineering to take charge of the engineering studies involved. Paul Bailey is chief of the water rights division, state engineering department.

New York Zoning Discussed by Am. Soc. C. E. Section

Residence and Retail Districts Protected — Skyscrapers Curbed — Decentralization Needed

What zoning has done for New York City since its adoption in the summer of 1916 was the topic of the meeting of the New York Section, Am. Soc. C. E., in that city Dec. 21. The formal discussiong was opened by Edward M. Bassett, formerly rapid transit commissioner, and Lawson Purdy, for some years commissioner of taxes and assessments, both members of the committee that framed the New York zoning regulations.

Zoning, said Mr. Bassett, has kept industries out of residence and high class retail business districts; has kept commercial garages out of residence and business districts; and has ameliorated but not cured the skyscraper evil.

Mr. Purdy gave as one result of zoning in which he takes much pride that is excludes signs from residence districts by prohibiting all structures therein except residences. He expressed the hope that the time will come when the only outdoor signs that will be permitted will be relatively small ones advertising business conducted in the buildings on which the signs are affixed.

John B. Fox, secretary of the Murray Hill association, told of the fight that the association has had to keep up to Murray Hill residence section. He stated that, with one exception, the Board of Estimate had supported the association by not granting appeals for the admitting of business into the district.

Use Restrictions Important

Rudolph P. Miller, superintendent of buildings in the Borough of Manhattan, sent a paper in which he said, among other things, that while height restrictions come first to mind, the restrictions as regards use are of greater importance. As to the exact benefits of the height restrictions, it is yet too early to say, Mr. Miller stated, as thus far there have been only forty buildings that have come within the set-back limitations as to the upper parts of the buildings.

Clarence S. Stein, architect, New York City, laid stress on the desirability of devising some way of providing homes for workers near their working places as a means of lessening congestion. An examination of the map of New York City, he said, would show that a very small portion of the lower end of Manhattan is occupied by residences notwithstanding the fact that many people work there. He suggested mixed residential districts with business uses in the first story and residences above. Finally, Mr. Stein said that we are approaching the time when the worker will be in touch with his industry on one hand and with green fields on the other.

General Discussion

Among those taking part in the general discussion were H. H. Curran, president of the Board of Manhattan, and D. L. Turner, consulting engineer, Rapid Transit Commission, New York City. Mr. Curran said that to knit the five boroughs of New York City together is a problem in engineering that is unsolvable without zoning. The present transit system he compared to a hub and spokes without a rim. He urged that instead there be a cobweb system so as to provide not only an outer circumferential, but also inner circumferential means of travel. Mr. Curran suggested fifty to seventy-five scattered districts in which the workers could live close to their industries, even though there might be short transit hauls of one-half mile to a mile, in contrast to the very long hauls between homes and workshops that exist today. Mr. Turner thought it a mistake to overemphasize the boroughs of New York City. The borough lines should be broken down, industry decentralized, and one large city made. There should be circular as well as radial lines of transit.

Would Fill Senate with Engineers

It would reflect more favorably on the progress of our civilization if there were more statues to engineers and fewer to soldiers. This thought was expressed by Lord Riddell in the course of remarks at the annual dinner Dec. 7 of the Washington (D.C.) Society of Engineers. Senator King, another of the speakers, said that the country would be benefited if the existing United States Senate were dismissed and each place filled with an engineer. Col. E. Lester Jones, director of the Coast and Geodetic Survey, served as toastmaster.

Herbert Quick, introduced as a literary engineer, cited instances to show that engineer representation on the governing bodies of great municipalities had resulted in such efficiencies that he believes county government should make use of its engineering rather than its professional political talent. While the railroads have utilized engineering talent very extensively in subordinate capacities, one reason why the railroads, in his opinion, are the most inefficiently managed great properties in the country is due to the fact that engineers have not had a voice in the broader questions of their conduct.

Completion of San Pablo Dam Adds to Oakland Water

Construction on the San Pablo water supply project for the city of Oakland, Cal., was started in August, 1916, by the East Bay Water Co. and the dam was advanced far enough to be used for storage in 1920. The dam has recently been finished and is to be used for storing the runoff this winter. It was built by the hydraulic sluicing method, is 110 ft. high, has a base width of 1,300 ft., a crest length of 1,250 ft. and contains about 2,200,000 cu.yd. of material.

In addition to the dam the project as a whole includes a 115-ft. concrete intake control tower, a 14,000-ft. concrete-lined tunnel with a capacity of 100,000,000 gal. per day and a rapid sand filtration plant with a normal capacity of 12,000,000 gal. per day.

William Mulholland of Los Angeles has acted as consulting engineer since the inception of the work. In the early stages Allen Hazen and John R. Freeman were also called in as consulting engineers. More recently J. M. Howells has been acting in this capacity. Geo. H. Wilhelm is vice-president and general manager of the East Bay Water Company and Geo. W. Hawley is engineer in charge of the San Pablo project.

May Purchase Cape Cod Canal

The purchase by the federal government of the Cape Cod canal has been recommended by Secretaries Weeks, Denby, and Hoover, who have informed congress that $11,500,000 would be a reasonable price for the property. Investigation of the acquisition of the canal by these three secretaries has led them to conclude that government control of it is desirable and the price reasonable.

Recommendation that the federal government acquire the property has been transmitted to Speaker Gillet and there accompanied the recommendation an agreement to be ratified by congress calling for the transfer of the canal property from the Boston Cape Cod & New York Canal Co. to the federal government.

Of the $11,500,000 purchase price, $5,500,000 would be a cash payment and the rest assumption of bonds now outstanding.

Discuss Engineering Aspects of Malaria Control

The third annual conference of malarial control field workers was held at Hot Springs, Ark., Nov. 15 to 17. Those in attendance were largely engineers and most of the twenty papers dealt with engineering work for malaria control.

The economic aspects of the subject were given particular attention. Among the papers were: "The Effect of Large Drainage Districts in the Mississippi Delta on the Control of Malaria," by L. L. Hidinger, president, Morgan Engineering Co., Memphis, Tenn.; "Use of Dynamite and TNT in Blasting Ditches," by J. T. Clarke, sanitary engineer, International Health Board, Greenwood, Miss.; "Economic Loss Caused by Malaria," by A. W. Fuchs, associate sanitary engineer, U. S. Public Health Service, Memphis, Tenn.; "Malaria Control in Memphis, Tenn.," by W. G. Stromquist, sanitary engineer, City Health Department, Memphis.

Alaska R.R. Nears Completion

With only 20 miles of track to be laid to close the gap in the interior section, the Alaska R.R. is rapidly approaching completion. This was the condition on Nov. 2. About 525 miles are in operation and it is expected that tracklaying gangs now working in both directions will reach Riley Creek, at Mile 347, on Dec. 1. (See *Engineering News-Record,* April 14, 1921, p. 632.)

Steel for the permanent high level bridge over Riley Creek has been shipped by the Phoenix Bridge Co. and it is expected to have this bridge completed by Feb. 1, giving a through line of rails from Seward and Anchorage to Nenana. The next work will be the permanent crossing of the Tanana River at Nenana. Connection with 85 miles of narrow-gage line north of the river is made now by means of a ferry in summer and by extending the narrow-gage track over the ice in winter. This Tenana River bridge and the widening of gage on the present track will give a through and unbroken railway line into Fairbanks. The railway is being built for the U. S. Government by the Alaskan Engineering Commission, of which Col. Frederic Mears is president and chief engineer.

Civil Engineers Will Discuss National Housing Problem

Following its monthly business meeting in the Engineering Societies Building, New York City, at 8 p.m., Jan. 4, the American Society of Civil Engineers will hold a conference on that evening and the following day on "The National Housing Problem." On Jan. 4 the broad economic phases of the subject will be discussed and on Jan. 5 the program provides for the consideration of "Planning and Zoning" at 10 a.m.; "Utilities," at 2 p.m.; and "Legislation and Financing," at 8 p.m. Nineteen speakers are scheduled to address the meetings.

Court Restores Civil Service Employee After 13 Years

Vindication of the validity of the civil service law as it pertains to employment in municipal service in Chicago is indicated by a "peremptory writ of mandamus" directed to the city, mayor, city treasurer, city clerk, city controller, each member of the city council and each member of the civil service commission to reinstate P. C. McArdle, with full back-pay allowance since 1908 as head of the testing division Bureau of Engineering. The legal battle which Mr. McArdle put up for reinstatement after being ousted started May 12, 1908, and continued through the circuit, appellate and supreme court and finally back to the circuit court which issued the writ on Nov. 21, 1921. Mr. McArdle, as construction engineer, has recently completed the building of the road system in Vermilion Co., Illinois, under a $2,000,000 bond issue and returns in person to his former position with the City of Chicago.

Committee To Study Creosoted Bridge Floor Construction

Under the auspices of the American Wood Preservers' Association a joint committee has been formed, including representation of the wood preserving, lumber, fire protection and bridge engineering interests, to study creosoted-wood bridge floor construction. A recent bridge floor fire furnished the impetus for the formation of the committee, on the basis of the probability that improper design of the floor played a part in the spread of the fire. Recognizing that wood must continue in use for a long time as a material for bridge floors, and that, as a measure of safety and conservation, treated wood should be used to protect against decay, the committee will study the question broadly.

The committee will meet under the chairmanship of L. T. Ericson, of the Jennison-Wright Co., who has been appointed representative of the American Wood Preservers' Association. George W. Booth, chief engineer of the National Board of Fire Underwriters, will represent fire protection; E. F. Kelley, of the Bureau of Public Roads, bridge engineering; and D. F. Holtman, of the National Lumber Association, the interests of wood.

W. C. K. Alumni Association

One hundred and forty former employees of Westinghouse, Church, Kerr & Co. met for supper on Wednesday, Nov. 30, and organized the "W. C. K. Alumni Association."

Atlanta Invites Bids for Filters and Clear Water Reservoir

Bids for a 21,000,000-gal. mechanical filter plant, a 10,000,000-gal. covered clear water reservoir and a wash water tank, all of reinforced concrete, together with a piping system of like material and of cast iron are to be received by J. N. Landers, purchasing agent of Atlanta, Ga., on Jan. 31. P. H. Norcross, of Atlanta, is consulting engineer for the work.

Lake Cushman Hydro-Electric Project Still in Doubt

In the superior court of Thurston County at Olympia Wash., the city of Tacoma is fighting another battle to obtain permits to proceed with its proposed development at Lake Cushman, on the north fork of the Skokomish River, of a hydro-electric plant to provide the city of Tacoma with additional electric horsepower. The newest obstacle to the city's project is an action on the part of the State Board of Fisheries, contesting the city's right to divert the waters of the Skokomish River. The city has completed its condemnation suit in the Mason county superior court, won its order of public necessity, settled damage claims, and paid out $300,000 to acquire the project site. The only detail necessary is the permit of the state hydraulic engineer to divert the waters from the river and to create an impounding reservoir, which has been checked by the move of the Fisheries Board.

The board claims that the development of the project would injure the fisheries industry of the state by destroying the spawning beds for salmon in the river. The city will make a strong fight to show that the Skokomish River has never been largely used by Salmon for spawning and that the loss to the industry would be trifling compared to the benefits accruing from the power development.

"Public Roads" Discontinued

Publication of *Public Roads*, the monthly magazine issued by the U. S. Bureau of Public Roads, has been discontinued. By action of Congress at its last session there was a wholesale discontinuation of bureau and department journals and *Public Roads* was caught in the drag-net. It served as a means of making public the general studies and special investigations of the bureau.

Use Opening of New Reservoir to Educate Public

A new 10,000,000-gal, reinforced-concrete reservoir to augment the storage capacity of the Indianapolis Water Co. was put into service in November and the company took this occasion to educate 272 representative business men, including the governor, mayor and heads of the Indiana Public Service Commission and City Board of Trade, into the mysteries of the water business by a 2½-hour inspection trip and set program of explanation.

C. L. Kirk, vice-president and general manager of the company, set forth the accomplishments of the company since 1913 in laying 103 miles of pipe, installing 1,000 hydrants and increasing the daily pumping capacity by 32 m.g.d. The 1920 average consumption he said was 30 m.g.d. and the maximum during summer sprinkling, 75 m.g.d. Improvements in 1921 cost $550,000. The new reservoir is the last of a series of clear-water reservoirs from which the water is pumped to the mains. It is 564½ ft. long, 258 ft. wide, 10.7 ft. deep, has 15-in. side walls and a 9-in. roof supported by 24-in. circular columns which rest on a groined arch floor, 5 to 23 in. thick, below which is a 4-in. reinforced-concrete slab. Preliminary to increasing the capacity of the present purification plant by the construction of mechanical filters an experimental filter is being constructed.

N. J. Plans Snow Removal from State Highways

System Divided into Sections about 12 Miles Long—Early Attack on Snow Essential

Plans for the removal of snow from the state highway system of New Jersey have been developed by the New Jersey Highway Commission. Chief Engineer Thomas J. Wasser has supplied the following information regarding the program:

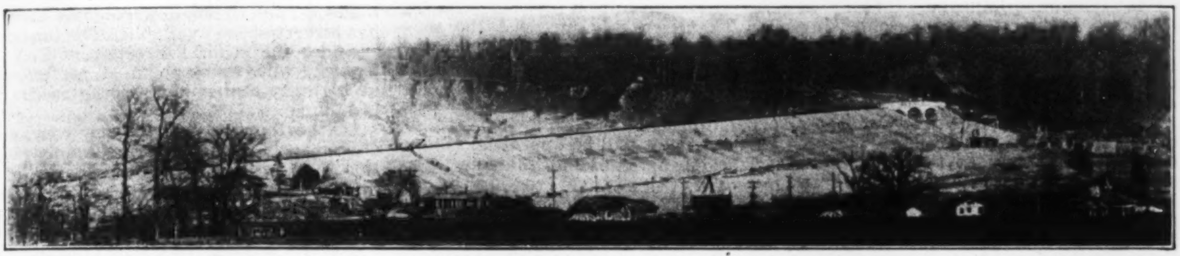
The state highway system of New Jersey comprises 725 miles, including some extensions and connections not yet taken over by the Commission. The system is divided into sections for the purpose of snow removal varying from a minimum of 9 to a maximum of 17 miles, the idea being to have the sections as near 12 miles in length as practicable.

There are 31 sections in what might be called the primary system comprising a total of 402 miles. These sections are assigned to various contractors in the state who have work near these sections or who have their headquarters nearby. Trucks that were received from the United States Government of 2½- and 5-tons capacity are equipped with snow plows and distributed to the various sections before Dec. 1.

WEATHER BUREAU HELPS

The Trenton office of the U. S. Weather Bureau co-operates with the State Highway Department and advises as far in advance as possible of the approach of any severe snow storm. This information is immediately telephoned to the contractors in the various sections of the state and they are advised to call together their organization and to go to the garages where their equipment is stationed so as to be in readiness to proceed with the snow removal work as soon as the depth of snow warrants attempting to

Taylorsville Detaining Dam Completed Recently Insures Dayton and Hamilton Against Flood Destruction



The largest of the five detaining dams of the Miami Conservancy District, that at Taylorsville, a few miles above Dayton, controls the main course of the Miami River. Farther north, Loramie Creek, one of the headwater streams, is controlled by the Lockington dam, completed several months ago. Two important tributaries entering at Dayton, Stillwater River and Mad River, are controlled by detaining dams at Englewood and at Huffman respectively, which are nearing completion. Finally, ten miles south of Dayton the inflowing Twin Creek is controlled by a dam at Germantown, which has been completed and in service.

The Taylorsville dam is 3,000 ft. long, has a maximum height of 78 ft., and contains about 1,200,000 cu.-yd. of earth embankment. Its outlet structure, comprising a series of four 15 by 20 ft. arched openings through a concrete spillway weir, is the largest of the concrete structures on any of the district work, containing about 50,000 cu.yd. of concrete. At extreme flood stage the outlet will discharge 50,000 sec.-ft. In a flood as large as that of 1913 the basin back of the Taylorsville dam would impound 152,000 acre-ft. of water.

Construction work at Taylorsville has been in progress three years. O. N. Floyd was in charge for the district as division engineer, assisted by H. L. Fruend, and H. M. Sherwood was construction superintendent. The embankment and concrete work is now completed, but there are odds and ends of work to be done, trimming and the like, which will keep the construction forces on the job probably into next spring.

Incidentally, the historic National Road will cross the valley along the crest of the dam, by way of a 30-ft. roadway. For this purpose the road has been shifted south about a mile, as its old location will be submerged when the dam impounds flood waters.

force it to the side of the road with the scrapers attached to the front of the motor truck, commonly called snow plows.

The success of the undertaking, Mr. Wasser points out, depends on getting out early and keeping ahead of the snow storm. The snow should not be allowed to accumulate to such an extent that it would interfere with the operation of the trucks. The trucks are operated in groups of two and three, the latter number being placed on the sections where the traffic is heavy and where there is likelihood of a heavy snow-fall. It is advisable to have at least three plows in a unit in case one should be out of commission for a time.

The trucks are manned by 3 men: one to operate the vehicle, another to operate the plow; and the third an extra man to be used in the case of emergency.

The remaining mileage of roads in the state highway system, comprising over 300 miles is taken care of by the forces of the state highway maintenance division. A comparatively small mileage in the northern part of the state is not cleared entirely of snow but is kept open for traffic. This is done because many of the vehicles in this section are on runners and there is some objection to removing the snow from the highways on that account. The sections in the southern part of the state are kept clear of snow by the maintenance forces but these roads are not the main through routes in the winter time, nor is the snow-fall as heavy as in the sections first mentioned. The maintenance forces are able to remove the snow with the equipment used for maintenance of roads.

Definite Results of Conference on Unemployment Cited

In his report upon work accomplished and results obtained since the President's Conference on Unemployment was called, Secretary of Commerce Hoover estimates that about 1,500,000 men and women who otherwise would have been unemployed, are now working, through the activities of the conference and local and state associations stimulated by it.

Among the concrete results which Secretary Hoover cites as having come out of the conference are: (1) Public opinion has been focused on unemployment; (2) municipal committees are organized on a nation-wide scale to relieve unemployment; (3) a national clearing house is ready to assist municipalities with district representatives in the field; (4) industry is assuming a share of responsibility to the unemployed; (5) municipal bond sales for public works have broken all records; (6) important public works have been inaugurated by Congress; (7) a large appropriation for the United States Employment Service is before Congress; (8) a variety of measures have been introduced into Congress to carry out recommendations of the conference such as Senator Kenyon's bill for long-range planning of public works; (9) the construction industries are being organized nationally and locally under public direction; (10) stabilization studies are being planned for seasonal and intermittent industries; (11) an investigation of methods for controlling the business cycle is in progress.

To Hold Lumber Congress

The American Lumber Congress will meet in Chicago April 5 and 6. The congress is being sponsored by the National Lumber Manufacturers Association which invites every national, regional and state association to be represented. Three congresses have been held but enthusiasm has waned since the first one was held in 1919. A renewed effort is being put forth with the idea of making the congress occupy the same relative position among forest and wood-using industries as the American Iron & Steel Institute does in the iron and steel trade.

War Department Will Approve San Francisco Bay Crossing

The chief of engineers, U. S. Army, has announced that favorable consideration will be given to a plan for bridging San Francisco Bay provided the plan conforms to certain conditions, has the necessary financial backing and the approval of the cities and counties affected. Five conditions are named, as follows: (1) no bridge of any kind north of Hunters Point will be approved, (2) no low bridge north of San Mateo will be approved, (3) a tunnel crossing the bay in any location will be approved provided the highest part of the structure is at least 50 ft. below mean low water and proper compensation is made for tidal flow, (4) a combined bridge and tunnel at a location south of the proposed Alameda naval base site will be approved provided a 3,000 ft. channel 50 ft. deep is left at the San Francisco end and proper provision is made for tidal flow, (5) not more than one crossing at any location north of San Mateo shall be approved at present.

Seattle's Right to Restaurant Garbage Upheld

The Superior Court recently refused to grant an injunction to prevent the Pacific Meat Packing Co. from carrying out its contract with the City of Seattle, Wash., for handling garbage from restaurants. The law suit on this subject was noted in *Engineering News-Record*, Oct. 13, 1921, p. 627. The contract was made as the result of an ordinance passed by the City Council directing the Board of Public Works to advertise for bids for restaurant garbage. The best bid received was from the Pacific Meat Packing Co., which has a large hog ranch on the east side of Lake Washington. The company is now carrying out its contract, which covers kitchen and table wastes from hotels and restaurants. All other forms of garbage and refuse are collected by the city, as has been the case for years past, and disposed of by the "sanitary-fill method."

According to information from A. H. Dimock, city engineer, the three incinerators built by the city some years ago have not been in use for many years and the "sanitary-fill method" will probably continue to be used as long as available dumping sites within reasonable distance are available. Mr. Dimock adds: "When the cost of haulage becomes excessive, or more than the cost of burning we may return to the method of incineration, but in my judgment it will be many years before that happens."

Contract Awarded on Wichita Falls Irrigation Project

The Callahan Construction Co., of Dallas, Texas, has been awarded a contract for the construction of the Wichita Falls irrigation project, on the Wichita River. The successful bid was $3,354,211. The contract, which is one of the largest let in the vicinity recently, calls for the completion of a diversion dam and a canal within a year, and a storage dam within two years. It is expected that work will be started within thirty days.

McGill Puts Civic Subjects in Engineering Course

A new course for civil engineering students and graduates has been opened this session at McGill College, Montreal, with the object of giving more thorough and detailed instruction in highway and municipal subjects than has hitherto been available. The course is under the general direction of R. L. French, who was appointed professor of highway and municipal engineering last June.

In the fourth year the new courses offered include one in civic administration. It will cover some phases of municipal activity which are seldom touched upon in engineering education, but which should be useful to all city engineers. Among the matters discussed will be the various systems of government, municipal finance, civil service, police and fire departments, recreation, municipal relief of the needy, welfare work and the like.

ENGINEERING SOCIETIES

Calendar

Annual Meetings

AMERICAN CONCRETE INSTITUTE, Detroit, Mich.; Annual Convention, Cleveland, Ohio, Feb. 13-16.

AMERICAN ROAD BUILDERS ASSOCIATION, New York; Annual Convention and Good Roads Show, Chicago, Jan. 17-20.

AMERICAN SOCIETY OF CIVIL ENGINEERS, New York City; Annual Meeting, New York City, Jan 18-19.

ASSOCIATED GENERAL CONTRACTORS OF AMERICA, Washington, D. C.; Annual Conference, Cleveland, Ohio, Jan. 17-19.

FEDERATED AMERICAN ENGINEERING SOCIETIES (American Engineering Council) Washington, D. C.; Annual Meeting, Washington, D. C., Jan. 5 and 6.

The New York Post, Society of American Military Engineers, announces the following meetings to be held in the Engineering Societies Building, New York: Dec. 15, Col. E. E. Winslow, "Flashes of Action at the Front"; followed by a Signal Corps moving picture; March 2, Col. F. E. Humphreys, Commanding Officer, 22nd Engineers, N. Y. N. G., showing a graphical history of the Meuse-Argonne offensive; April 6, Col. George C. Marshall, "History of the A. E. F. and Lessons of the War."

The Lansing (Mich.) Engineers' Club, at its meeting Nov. 16, was addressed by **Col. W. C. Holt**, professor on civil engineering, University of Michigan, on the sewerage system of Lansing, present and future.

The **Engineering Institute of Canada, Montreal Branch**, at its opening meeting, presented Roger French with the Gzowski Medal for his paper, "Reinforced Concrete Covered Reservoirs." At the evening session A. E. Doucet presented the first of a series of papers to be given on the Montreal Aqueduct, in which he sketched the whole waterworks scheme of the city.

The **Engineers' Association of Fairfield County, Stamford, Conn.**, recently appointed a committee on city planning consisting of A. S. Brower, G. H. Cavanaugh, H. A. Parsons, V. E. Wardwell and J. W. Mershon, chairman, to draw up a preliminary zoning plan which will be submitted to a citizens' committee on city planning appointed by the mayor.

The Engineering Institute of Canada, Toronto Branch, at its meeting Nov. 3, was addressed by A. G. Dalzell on his experiences in connection with laying 145 miles of sewers in Vancouver.

The Indiana Engineering Society will hold its annual meeting at Purdue University, Lafayette, Ind., Jan. 19 and 20. Among the subjects listed are the following: "The Future of the Gas and Steam Automobile," Prof. A. C. Staly, Purdue University; "Sphere of Influence of the Society," R. C. Yeoman, Indianapolis; "The Engineers' License Law," Prof. R. L. McCormick, Rose Polytechnic Institute; "Current Issues for the Engineer," H. O. Garman, Indianapolis; "Sanitary Engineering," Paul Hansen, Chicago; "The Indianapolis Sewage Plant," C. K. Calvert, assistant engineer, Indianapolis Sanitary District; "The Engineer in Politics," John Elliott, city engineer, Indianapolis. There will be a social meeting Jan. 19 and the annual dinner on Jan. 20.

The Central Ohio Section, Am. Soc. C. E., at a recent meeting, elected as president W. F. Jennings, a member of the Jennings & Lawrence Engineering Co., and as secretary, H. F. Schryver, valuation engineer, Toledo & Ohio Central R.R.

The Northeastern Section, Am. Soc. C. E., recently organized, has elected the following officers: Chairman, Frank B. Sanborn; vice-chairman, Walter C. Voss; secretary-treasurer, Charles W. Banks; members of the executive committee, Leonard C. Wason, James H. Manning.

The New York Section, Am. Soc. C. E., at its Jan. 11 meeting will consider the topic, "Traffic Handling—Its Engineering as well as Regulatory Aspects." The chief addresses will be by E. P. Goodrich, consulting engineer, and Amos Schaeffer, consulting engineer to the Borough President of Manhattan.

The Iowa Engineering Society will hold its twenty-fourth annual meeting in the Woodbury County Court House, Sioux City, Iowa, Jan. 17-20. There will be an exhibit of equipment and material.

A **Sanitary Engineers' Dinner** will be held Jan. 17 at 7.30 p.m. at the Hotel McAlpin. Reservations should be made by Jan. 12, addressing Kenneth Allen, 1235 Municipal Building, New York City.

PERSONAL NOTES

J. R. McDermott, former assistant division engineer, West Virginia State Road Commission has been appointed resident engineer for the commission in charge of road construction and maintenance in Mineral and Hampshire counties. His headquarters will be at Keyser, W. Va.

Vance W. Baise, draftsman and computer with the North Carolina State Highway Commission has been promoted to assistant engineer, department of highway designs and estimates, at Raleigh.

Ray Speer, county engineer, Keweenan County, Mich., has resigned to accept a position with the Wisconsin State Highway Department, as Madison.

Morse B. Pringle, chief engineer for the Eastman Kodak Co., in charge of the construction of its chemical plant at Kingsport, Tenn., has been appointed city manager of Smyrna. Florida.

G. F. Nicholson, chief engineer, Port of Seattle, has been retained by the city of Cork, Ireland, to make a comprehensive plan for harbor development. He has obtained a six months' leave of absence and is now en route to Europe. Before returning to this country he expects to visit the important ports of Europe, particularly those which have extensive mechanical equipment.

E. W. Rice, Jr., president of the General Electric Co., has been elected to membership in Tau Beta Pi, the national honorary engineering society.

Albert W. Smith, formerly dean of Sibley College, Cornell University, is now connected with the firm of Henry R. Kent & Co., engineers and constructors, of New York and Boston, as consulting engineer. Dean Smith's work will relate particularly to thermodynamics and mechanical engineering of chemical plants. During the interval between the resignation of President Schurman and the recent inauguration of President Farraud—about a year and a half—Dean Smith was acting president of Cornell.

Howard R. Fullerton, formerly in the sanitary engineering division, U. S. Public Health Service, has been appointed assistant sanitary engineer for the Tennessee State Department of Health on sewage disposal and water supply work.

P. C. McArdle, superintending engineer, Vermilion Co., Ill., having completed the $2,000,000 county bond road system, has tendered his resignation effective Dec. 15.

H. O. Garman, chief engineer, Indiana Public Service Commission and Railroad Commission for 14 years, has entered private practice in Indianapolis as a consulting engineer. He will handle the management and operation of public utilities. Mr. Garman is president of the American Association of Engineers.

Howard C. Phillips, whose resignation as chairman, Western group, engineering committee, Railway Presidents Conference Committee on Valuation, was noted in *Engineering News-Record* of Dec. 8. has taken up consulting work in railway valuation and inspection, with office at 14 East Jackson Boulevard, Chicago. He retains his connection with the engineering committee, having been made associate engineer.

George W. Hand, assistant to the president Chicago & Northwestern Ry., is chairman of the engineering committee of the Western group, Railway Presidents Conference Committee on Valuation. Mr. John R. Leighty is engineer for this group, instead of being chairman as noted Dec. 8.

OBITUARY

Gustavus O. Newman, chief engineer for the San Joaquin Light and Power Company and the Midland Counties Public Service Corp., of California, died in Los Angeles, Cal., Dec. 4. He was born in Fortuna, Sweden, in December, 1844, and following his technical education, became an engineer of the Swedish government railroad. He came to America in 1868, and his first work was on the construction of a bridge at Kansas City. He entered the service of the U. S. Geological Survey in 1881, and later was connected with the Southern Pacific and Central Pacific railways. For 12 years following 1884 he was chief engineer of the Riverside (Cal.), Water Company. In 1897 he went with the San Gabriel Electric Co. as chief engineer, and when the company was purchased by the Paçific Electric Light & Power Co. he was retained in the same capacity.

BUSINESS NOTES

The Osgood Co., Marion, Ohio, has recently opened a branch sales office in the Conway Building, Chicago, in charge of Arthur B. Sonneborn.

C. E. Slawson, contracting engineer, has assumed charge of the Milwaukee district of the Federal Bridge & Structural Co., succeeding L. F. Vonier.

Col. Henry P. Bope, for many years first vice-president and general manager of the Carnegie Steel Co., with headquarters at Pittsburgh, Pa., has been elected president and general manager of sales of the International Steel Tube Co., Cleveland, Ohio.

The Golden-Anderson Valve Specialty Co., Pittsburgh, Pa., announces that it has appointed Lawrence C. Whitsit and F. W. DuBois as its Michigan representatives, to operate under the name of the Waterworks Equipment Co., in Detroit.

E. W. Pittman, president of the Pittman-Smith Engineering Co., has been made general manager of the Penn Bridge Co.

B. L. Whitney, formerly with the Byers Co., is now representative for Orton & Steinbrenner Co., manufacturers of material-handling machinery, with headquarters at Detroit.

The Phoenix Iron Works Co., Meadville, Pa., has opened an office in Dallas, Tex., with K. B. Thorndike, as manager.

Business Side of Construction

Facts and Events that Affect Cost and Volume

Bids Wanted on Big Jobs

Among the projects on which are being either asked or will soon be called for in Construction News, pp. 279@287, are the following:

Railway system for Sugar Pine Lumber Co., San Francisco, Cal., $2,500,000.

Terminal Substructure for China Basin Terminal, San Francisco, Cal., $800,000.

Apartment project for Chester Gardens Co., at Cleveland, Ohio, $2,500,000.

Bank and office for Bank of America, New York, $2,500,000.

Theatre and office for Fox Film Corp., Philadelphia, Pa., $1,000,000.

Asylum for Secaucus, N. J., $700,000.

Hotel for Bellerive Investment Co., Kansas City, Mo., $1,000,000.

Large Contracts Let

Among this week's announcements of contracts awarded in Construction News, pp. 279@287 are the following large projects: An 18-story office building in Dallas, Tex., to G. W. Hewitt, Slaughton Bldg., $1,000,000; a 2-story hospital in Milwaukee, Wis., to H. Schmitt & Son, 43 Farwell Ave., Milwaukee, $1,094,000; a 12-story apartment hotel in Cleveland, O., to J. Gill & Sons, Cleveland, $1,500,000; a sewage disposal plant at Columbia, Mo., to C. J. McCoy Construction Co., Emporia, Kan., $178,857.

Hearings on Freight Cases on Building Materials Set

Hearings on the freight rate cases involving shipment of sand and gravel, brick, lime, cement, gypsum and asphalt have been set for Jan. 24 and 25 by the Interstate Commerce Commission. On Jan. 26 and 27 hearings on the lumber and forest products cases will be heard.

Durable Highways Built in Pennsylvania in 1921

Durable highways in Pennsylvania for 1921 exceeded 650 mi. on Nov. 18. According to the State Highway Department this is 300 mi. better than any mark reached by other state highway departments for this type of pavement in one year. The departments maintenance forces put down 215 mi. of waterbound macadam and 297 mi. of unbound macadam and have surface-treated with oils and bituminous materials 1,797 mi. of roadway.

NEXT WEEK

1. ***Explanation of E. N.-R. Construction Cost and Construction Volume Index Numbers.***
2. ***E. N.-R. tabulation of spring prices since 1913.***
3. ***Price trends of construction materials shown graphically for nine to twenty-two years.***
4. ***Trend of labor—Actual rates on six classes of skilled labor in twenty-one cities for January of 1921 and 1922; chart of common labor and cost of living for nine years.***
5. ***Representative unit bids in 1921.***
6. ***Review of the bond market.***
7. ***Analysis of contracts let.***

Majority of Jobs in Chicago Under Landis Award

Reporting on the activities of the week of the Chicago Citizens' Committee to enforce the Landis Award *Chicago Commerce*, published by the Chicago Association of Commerce which is backing the committee states:

"The seven automobiles belonging to the committee have been used in making a check of 800 jobs. Of these 153 are being operated exclusively with men furnished by the citizens' committee. The Landis award was being obeyed on 545 others and a total of only 102 violators was discovered. The first day's investigation was confined to Evanston and the towns north of it. In this locality 63 jobs were visited and 19 violations discovered. Of the violators seven promised the committee that they would reform and abide by the Landis award of $1 an hour for carpenters. During the second day of this work the city was divided into four sections, extending north from Madison St. One car made a further check of Wilmette, Winnetka and as far north as Glencoe. During the second day 128 construction jobs were visited and only 20 violators found."

The committee proposed to be as drastic with contractors who cut below the Landis scale as with those who pay the higher wage demands of the unions.

Paving Prices—Materials and Recent Contracts

With the buying season on road materials over for 1921 and not yet open for 1922, this is a good time to consider how prices have been moving in the last few years and what is their present trend. Road oils and asphalt were most sensitive to the cessation of war orders and the necessity of stimulating the normal peace demand. This is easily shown by averaging the per gallon prices of the five oils listed monthly by *Engineering News-Record*, as follows: 1920 peak, 14c.; December, 1920, 13c.; November, 1921, 5.6c.; today, 6.3c. The same general trend holds for asphalt, which has dropped from $45 per ton at the peak to $15 a month ago and $17 today, in bulk, f.o.b. Bayonne, N. J.

Examination of Table I will give a working knowledge of paving prices. As an index, adding the prices of a square yard of common granite blocks, Chicago, a square yard of wood-blocks, New York, a cubic yard of crushed stone, New York, and a barrel of cement, Chicago, the result is $8.94 for December 1, as against $11.64 at the peak and $11.59 one year ago, the decline being 23 per cent. Quotations prior to 1920 are listed in the last column.

See Table II for contract prices.

TABLE I. PRICES OF ROAD AND PAVING MATERIALS

Material	Current	One Month Ago	One Year Ago	1920 Peak		Previous to 1920
Road Oils						
Price per gal., f.o.b., N. Y. (at terminal) in tank cars, 8,000 gal. minimum:						
45% asphalt	$0.055	$0.05	$0.13	$0.14	(Sept.)	$0.065 (July, 1917)
65% asphalt	.05	.05	.12	.14	(Sept.)	.07 (July, 1917)
Binder	.08	.06	.13	.14	(July)	.085 (July 1917)
Flux	.065	.055	.13	.15	(July)	.0475(Nov. 1919)
Liquid asphalt	.065	.065	.13	.14	(Sept.)	.06 (Nov., 1919)
Asphalt						
Price per ton f.o.b. Bayonne, N. J., in 350 lb. barrels or 425 lb. drums	$26.00	$24.00	$36.50	$50.00	(June)	$15.00 (Nov., 1915)
In bulk (carload lots)	17.00	15.00	29.00	45.00	(June)	20.00 (Nov., 1917)
Paving Stone						
About 4x8x4, f.o.b. Chicago, per sq.yd.:						
Dressed	$3.35	$3.35	$3.40	$3.40	(Sept.)	$2.15 (Sept., 1916)
Common	3.00	3.00	3.05	3.05	(Sept.)	1.65 (Sept., 1916)
Curbing:						
Bluestone 5x16 in., N. Y., per lin. ft	.77	.77	.70	.70	(July)	.40 (Nov., 1915)
Wood Block Paving:						
Size 3½, 16 treatment, N. Y., per sq.yd.	2.17	2.17	4.02	4.07	(Sept.)	2.00 (Nov., 1917)
Crushed Stone						
¾ in., carload lots, f.o.b. N. Y., per cu.yd.	$1.80@ $1.90	$1.80@ $1.90	2.15	2.15	(May)	$0.90@ 1.00 (Nov., 1913)
Cement:						
Chicago consumers' net prices, without bags	1.97	1.97	2.37	2.37	(Sept.)	1.19 (all 1913)

TABLE II. PRICES OF SOME RECENT CONTRACTS AWARDED ON STREET AND ROAD WORK

Materials and Unit Prices	Amount	Location	Date	By Whom Awarded	To Whom Awarded
32,042 sq.yd. sheet asphalt at $1.389 per sq. yd.	$44,538	Gloucester Co., N. J.	Oct. 20, 1921	State Hy. Comn., Trenton, N. J.	Union Paving Co., Phila., Pa.
32,220 sq.yd. two-course rein.-con. at $3.566 per sq.yd.	114,900	Clarksville, Tex.	Aug. 25, 1921	Red River Co.	McGuire & Cavender, Leavenworth, Kan.
31,300 sq.yd. concrete at $4.79 per sq.yd.	150,000	Hot Springs, S.D.	Aug. 25, 1921	Municipality of Hot Springs	Allied Contractors, Inc., Omaha, Neb.
Bituminous Macadam 7,400 ft. by 18 ft., 14,800 sq.yds. at $2.615 per sq.yd.	38,704	Agawam, Mass.	Oct. 31, 1921	Dept. Pub. Wks., Div. Highways, Boston, Mass.	Hassam Paving Co., Worcester, Mass.
Grading, draining, curbing and paving 70,000 sq.yd. at $4 per sq.yd.	280,000	Durham, N.C.	Aug. 18, 1921	City of Durham,	Murray Constr. Co., Knoxville, Tenn.

Trend of Business

Money—Call loan rates 4½@5 per cent, time money 5¼.

Foreign Exchange—Canadian Exchange 94.3 cents, which is highest in two years. Sterling about $4.20. Generally rising exchanges are aiding sales of foreign bonds.

Railway earnings of Class 1 American railways for 1921 will approximate $561,665,000, net, according to the Bureau of Railway News and Statistics. This is about 3 per cent on the $18,900,000 valuation of the Interstate Commerce Commission. The 1920 net operating income was minus $22,338,836.

Steel employees are offered stock in the U. S. Steel Corporation at $84 for common, to a total amount of 100,000 shares. In other years the offerings were made at the following prices: 1909, $50; 1911, $70; 1912, $65; 1913, $66; 1914, $57; 1915, $85; 1917, $107; 1918, $92; 1919, $92; 1920, $106; 1921, $81.

Textiles — Seasonal dullness in woolen and worsted trades, but William Wood of the American Woolen Co. promises no wage reductions by his company. Demand for cotton goods better, with prices unchanged. Raw silk up to 30 cents a pound owing to advancing market in Japan. Lower prices expected for raw furs. Careful buying of jewelry during holiday season. Little activity in the leather trade. In general, 1922 is expected to be a better year than the one passing; money is easier and many of the large surplus stocks have been sold.

Foreign Construction Projects

Shanghai, China, is planning a sewerage system according to United States Commerce Reports, at an estimated cost equivalent to about $3,000,000 gold, including value of land for a disposal-plant.

A loan of £200,000 has just been floated in London to complete a drainage and sewerage system for Rosario, Argentina. The original estimated cost of this work was £266,000, but £284,720 have already been spent on the uncompleted contract of November, 1910, which was delayed by the war.

Tokyo, Japan, is to install a complete sewerage system at a cost of 20,000,000 yen. Kobe is also to install a system at a cost of 40,000,000 yen. It is possible that some of the pipe used may be of American wood. Tokyo is spending 39,500,000 yen on street repairing and paving in which creosoted wooden paving blocks play an important part. At present these blocks are made in Japan of American fir, but some doubt is expressed as to the efficiency of the Japanese creosoting methods, and there is a possibility that later the blocks may be imported from America.

Large increases in exportations of American lumber to Japan are reported as being due to increased demands in the Japanese market, the cheap price of American lumber as compared with that of Japanese lumber, cheap ocean freight rates and plenty of cargo space, and to the fact that accessible Japanese timber is becoming increasingly scarce. The immediate outlook for American lumber is good provided prices do not greatly increase.

Determining Wages of Building Trade Mechanics

Carpenter's Wage Taken as a Basis—Fair Rates Can Be Computed For Any City

By Thomas H. Coe

Of O. D. Purington & Company, General Contractors, Providence, R. I.

Computation of what fair building trade wages should be was made by the writer in connection with a recent study undertaken for the Master Builders' Association of Rhode Island. In the computation the wages of the carpenter are taken as the basic wage in the so called skilled trades and the wages of the laborer as the basic wage in the unskilled and helpers trades and 1913 as the basic year. For the purpose of illustrating the computation of wages by statistics, let us assume that last spring a study of economic conditions showed that basic wages in the building trade for 1921 should be 1.6 times those of 1913.

The two accompanying tables have been constructed from data taken from the *Monthly Labor Review* of the U. S. Department of Labor. A careful study of these tables shows that the differentials between the wages of the trades remained about the same during the period covered. During the first years the relation remained almost exactly the same. Later on it varied slightly, and during the sky-rocketing of wages the trades making the most exorbitant demands made some gains over the trades that were more modest.

In the table of wages of skilled mechanics (Table I) the column headed "1913 plus 0.47.1" was computed by giving each trade the same advance over wages in 1913, or the last full normal construction year. The amount is the average of the increases in 1920 over 1913 of all the trades. This column then shows what the May, 1920, rates would have been if all trades had received the same increase in wages over 1913 rates.

We have assumed that the 1921 basic wages should have been 1.6 times the 1913 basic wage. Therefore, the average wage through the country for the carpenter should have been 1.6 × 53 cents, or 84.8 cents per hour, an increase of 31.8 cents. The average for the country for the other trades is then found by adding to the 1913 wages the sum of 31.8 cents and the result is shown in the column headed "Computed 1921."

By tabulating all the 1913 wages for any city and making a comparison with the 1913 average for the country a fair 1913 carpenter's basic wage may be found for that particular city, and the 1921 carpenters wage computed by applying the 1.6. The 1921 wages for the other skilled trades would then be found by adding the same increase in cents per hour to the 1913 country average wages.

The table of unskilled labor and helper's wages is computed in the same manner as the table of the so-called skilled trade wages with the laborer's wage as the basic wage. Computation for any city for unskilled labor rates would be made in the same manner as in the case of skilled labor.

It would seem that for some time statistics are to be the governing factor in the determination of wage scales. If we are working back toward 1913 conditions it is not going to be easy to argue that if we were to arrive at that point the different trades should have the same differentials in pay that they did in 1913.

TABLE I. PAST AND COMPUTED WAGES OF SKILLED MECHANICS IN THE BUILDING TRADES

U. S. Average May Rates per Hour

	1913	1914	1915	1916	1917	1918	1919	1920	1913 Plus 0.471	Computed 1921
Bricklayers	0.686	0.699	0.706	0.713	0.734	0.789	0.878	1.200	1.157	1.004
Carpenters	0.530	0.541	0.546	0.562	0.610	0.668	0.774	1.034	1.001	0.848
Cement finishers	0.552	0.557	0.563	0.568	0.602	0.662	0.745	1.010	1.023	0.870
Engineers	0.586	0.592	0.598	0.604	0.633	0.727	0.797	1.032	1.057	0.904
Granite cutters	0.513	0.518	0.518	0.539	0.559	0.667	0.790	0.970	0.984	0.831
Electricians	0.547	0.564	0.575	0.586	0.624	0.695	0.799	1.051	1.018	0.865
Fixture hangers	0.491	0.521	0.521	0.540	0.580	0.634	0.707	0.953	0.962	0.809
Lathers	0.485	0.494	0.499	0.514	0.533	0.577	0.640	0.916	0.956	0.803
Marble setters, helpers	0.665	0.672	0.678	0.678	0.685	0.718	0.798	1.051	1.136	0.983
Painters	0.505	0.520	0.526	0.571	0.591	0.652	0.763	1.041	0.976	0.823
Plasterers	0.674	0.680	0.680	0.707	0.728	0.761	0.883	1.152	1.145	0.992
Plumbers	0.619	0.625	0.631	0.637	0.662	0.724	0.823	1.064	1.090	0.937
Sheet metal workers	0.512	0.532	0.538	0.548	0.573	0.671	0.737	0.988	0.983	0.830
Steam fitters	0.598	0.610	0.622	0.634	0.658	0.723	0.807	1.070	1.069	0.916
Stone cutters	0.570	0.593	0.598	0.604	0.633	0.673	0.798	1.043	1.041	0.888
Stone masons	0.610	0.628	0.634	0.646	0.671	0.731	0.823	1.146	1.081	0.928
Steel erectors	0.617	0.629	0.629	0.641	0.678	0.777	0.882	1.104	1.088	0.935
Tile layers	0.652	0.658	0.658	0.671	0.704	0.723	0.788	1.062	1.123	0.970
Average rate	0.578	0.591	0.596	0.609	0.637	0.698	0.791	1.049	1.049	0.896
Average increase (over 1913)	.....	0.013	0.018	0.031	0.059	0.120	0.213	0.471	0.471	0.318

TABLE II. PAST AND COMPUTED WAGES OF LABORERS, TENDERS AND HELPERS IN THE BUILDING TRADES

U. S. Average May Rates per Hour

	1913	1914	1915	1916	1917	1918	1919	1920	1913 Plus 0.440	Computed 1921
Building laborers	0.309	0.312	0.312	0.327	0.361	0.423	0.482	0.698	0.749	0.494
Hod carriers	0.356	0.359	0.363	0.373	0.416	0.487	0.569	0.825	0.796	0.541
Marble setters' helpers	0.404	0.408	0.408	0.408	0.432	0.453	0.517	0.873	0.844	0.589
Plasterer's laborers	0.409	0.417	0.417	0.429	0.458	0.528	0.601	0.871	0.849	0.594
Steam fitter's helpers	0.312	0.319	0.328	0.331	0.353	0.409	0.490	0.709	0.752	0.497
Tile layer's helpers	0.359	0.362	0.373	0.387	0.398	0.409	0.498	0.814	0.799	0.544
Average rate	0.358	0.363	0.367	0.376	0.403	0.451	0.526	0.798	0.798	0.543
Average increase over 1913	.....	0.005	0.009	0.018	0.045	0.093	0.168	0.440	0.440	0.185

Engineering News-Record's Cost Index 1915 to Date

Engineering News-Record's Construction Cost Index Number is here tabulated monthly from January, 1915, to December, 1921, inclusive. Next week's issue, Jan. 5, which will feature the Business Side of Construction, will carry the complete monthly list of the Cost Index Number, with chart and an explanation of the Number.

ENGINEERING NEWS-RECORD CONSTRUCTION COST INDEX NUMBER
(100 in 1913)

	1915	1916	1917	1918	1919	1920	1921
January	86.12	130.46	167.75	184.51	198.05	206.55	230.87
February	87.36	134.46	167.75	184.51	201.50	225.10	230.67
March	87.66	142.96	175.66	184.51	198.05	240.85	224.27
April	90.16	147.31	183.41	186.01	191.25	265.20	213.07
May	90.16	148.86	187.61	186.01	191.25	268.90	210.82
June	88.96	146.51	199.26	186.31	191.85	273.80	209.82
July	90.51	145.76	204.01	188.65	193.65	265.65	203.82
August	91.76	146.56	198.41	193.85	196.65	252.00	193.07
September	93.01	149.56	190.31	193.85	202.85	255.20	188.27
October	96.16	152.91	167.11	193.85	202.25	255.20	182.57
November	101.06	155.66	166.50	193.55	206.85	255.32	166.32
December	107.06	167.15	167.11	194.75	206.85	251.62	167.82

Weekly Construction Market

THIS limited price list is published weekly for the purpose of giving current prices on the principal construction materials, and of noting important price changes on the less important materials. Moreover, only the chief cities are quoted.

Valuable suggestions on costs of work can be had by noting actual biddings as reported in our Construction News section.

The first issue of each month carries complete quotations for all construction materials and for the important cities. The last complete list will be found in the issue of December 1; the next, on January 5.

Steel Products:	New York	Atlanta	Dallas	Chicago	Minneapolis	Denver	San Francisco	Seattle	Montreal
Structural shapes, 100 lb	$2.78	$4.00	$4.00	$2.88	$3.06	$3.75	$3.45	+$3.85	$4.00
Structural rivets, 100 lb	3.50	5.25	5.50	3.43	4.15	4.25	5.50	4.25	6.50
Reinforcing bars, ¾ in. and larger, 100 lb	2.68	3.20	3.50	2.68	−2.96	3.57½	3.00	3.75	2.75
Steel pipe, black, 2½ to 6 in. lap, discount	61%	57.65%	45%	57%	61.9–5%	41%	53.7%	−55%	35.10
Cast-iron pipe, 6in. and over, ton	47.30@48.30	45.00	54.30	44.10	47.80	52.00	50.00	55.00	60.00
Concreting Material:									
Cement without bags, bbl	2.30	2.69	2.55	1.97	2.26	3.10	2.84	3.10	3.12
Gravel, ¾ in., cu.yd	1.75	1.85	2.25	2.00	1.50	2.50	2.25	1.50	1.50
Sand, cu.yd	1.00	1.25	2.25	2.00	.50	1.10	1.50	1.50	1.25
Crushed stone, ¾ in., cu.yd	1.80 to 1.90	2.00	3.20	1.60	2.25	3.50	2.25	3.00	2.10
Miscellaneous:									
Pine, 3x12 to 12x12, 20 ft. and under, M.ft	49.00	38.00	34.00	48.00	+36.00	50.00	30.00	22.00	120.00
Lime, finishing, hydrated, ton	16.99	19.00	25.00	18.00	29.00	30.00	22.00	27.00	21.00
Lime common, lump, per bbl	−3.00@3.49	1.50	2.75	1.40	1.40	2.95	1.90	3.25	11.00
Common brick, delivered, 1,000	17.40@18.40	9.00	12.72	11.00	17.00	14.00	15.50	14.00	16.00
Hollow building tile, 4x12x12, block	Not used	.0675	.13	.0821	.0792	.09	.12½	.10	.08@.29
Hollow partition tile 4x12x12, block	.11120	.0675	.13	.0657	....	.10	.14½	.11	......
Linseed oil, raw, 5 bbl. lots, gal	.72	.78	.88	.74	.80	.90	—.82	.79	.85
Common Labor:									
Common labor, union, hour	.75	.35	....	.72½	.50	.50@.55	.75	.50@.60	......
Common labor, non-union, hour	....	.20	.35@.45	.35@.40	.50	.35@.40	.50@.55	.50	.25@.30

Explanation of Prices—Prices are to contractors in carload lots unless other quantities are specified. Increases or decreases from previous quotations are indicated by + or — signs. For steel pipe, the prevailing discount from list price is given: 45-5% means a discount of 45 and 5 per cent, 45@50 means a range of 45 to 50 per cent. Charge of 15c. per 100 lb. for cutting reinforced steel into 2-ft. lengths or over. **New York** quotations are delivered except tiles, which are "on trucks." Common lump lime per 280-lb. net; both lump and hydrated quoted f.o.b. cars New York. Sand gravel and crushed stone are quoted alongside dock. Cement and steel pipe delivered to contractors on job. Gravel ready mixed $2 per cu.yd. **Chicago** quotes hydrated lime in 50-lb. bags; common lump lime per 180-lb. net. **Minneapolis** quotes on fir instead of pine. Brick and hollow tile delivered. Cement on cars; $2.45 delivered. Gravel, sand and crushed stone quote at pit. We quote on brown lime per 180-lb. net; white is $1.70 for Kelly Island and $1.55 for Sheboygan. Common labor not organized. **Denver** quotes cement "on tracks"; gravel and sand at pit, stone on cars, lime, brick, hollow tile and lumber on job. Tile price is at warehouse. Linseed oil, delivered. Common lump lime per 180-lb. net. **Atlanta** quotes sand, stone and gravel per ton instead of cu.yd. Common lump lime per 180-lb. net. **Dallas** quotes lime per 180-lb. bbl. Steel, cement, cast-iron pipe and crushed stone f.o.b. cars, other materials delivered. **San Francisco** quotes on Heath tile, 5½ x 8 x 11½. Prices are all f.o.b. warehouses except C. I. pipe, which is mill price plus freight to railway depot at any terminal. Common lump lime per 180-lb. net. Lumber prices are to contractors in yards at San Francisco. **Seattle** quotes on Douglas fir instead of pine. Lump finishing lime per 180-lb. net. **Montreal** quotes sand, stone, gravel and lump lime per ton. Cement, lime and tile are delivered; sand, gravel and stone, on siding; brick f.o.b. plant; steel and pipe at warehouse. Hollow tile, per ft. Cement price is in Canadian funds (the Canadian dollar stands at 91.2 cents). Bag change is 80c. per bbl. Discount of 10c. per bbl. for payment within 20 days from date of shipment. Steel pipe per 100 ft. net.

Changes Since Last Week

Slight advances are reported in two important construction materials during the last week. Seattle quotes structural steel shapes at $3.85 as against $3.75 per 100 lb. and Minneapolis quotes Douglas fir, base sizes, at $36 as compared with $35 per M. ft. one week ago.

Pittsburgh quotes an average reduction of $5 per ton on wire rods, wire and cut nails, making the present price of wire nails $2.50 as against $2.90 and cut nails $2.25 as compared with $2.60 per keg on Dec. 1. Wire rods, are quoted at $38 as against $42 per ton at the mill.

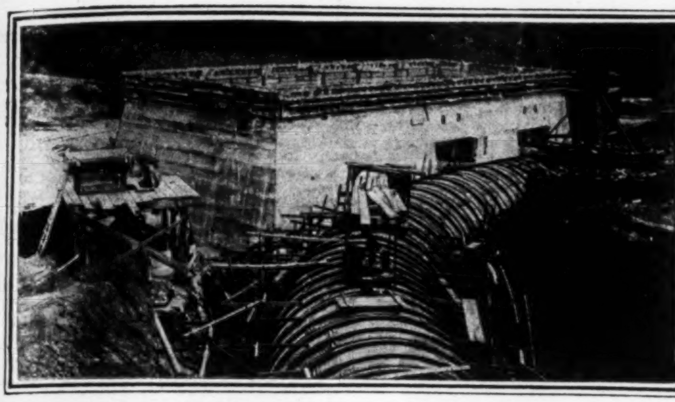
Mill shipments of steel shapes are quoted in Seattle at $3.47; reinforcing bars at $3.37 per 100 lb. An additional discount of 5 per cent is quoted on steel pipe, making the present rate 55 per cent as against 50 per cent. Changes in hollow tile and brick block quotations are expected in the Seattle district after Jan. 1; advances in lumber are anticipated owing to continually increasing demands.

Minneapolis quotes a decrease of 12½c. on reinforcing bars, making the present price $2.96 as against $3.08½ per 100 lb. Common lump lime is quoted in New York at $3@$3.49, f.o.b. cars, as compared with the former quotation of $3.39@$3.69 per lb. (280 lb. net.) Linseed oil is quoted in San Francisco at 82c. as compared with 83c. per gal. last week.

The National Lumber Manufacturers' Association reports production 27 per cent; shipments 33 per cent and orders 36 per cent below normal, for the week ending Dec. 23.

The Southern Pine Association reports 76,534,677 ft. of lumber cut; 67,886,640 ft. shipped and orders for 56,209,284 ft. for the week ending Dec. 17.

The West Coast Lumbermen's Association reports for the same period 62,261,599 ft. cut; 52,020,892 ft. shipped and orders amounting to 60,708,605 ft. b.m.



CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

July 11	Attica, N. Y.	June 16
July 11	Durant, Ia.	June 30
July 12	Kimball, S. D.	June 23
July 12	Howell, Mich. Adv. July 7.	July 7
July 14	Forest Lake, Minn.	July 7
July 15	Ilion, N. Y. Adv. June 30 and July 7.	July 7
July 19	Wingham, Ont.	July 7
July 25	Marysville, Wash	June 23
July 26	Bombay, India	Apr. 28

SEWERS

July 9	Miamisburg, O. Adv. June 16 to July 7.	June 16
July 10	Duluth, Minn.	June 30
July 11	Logan City, Utah	June 30
July 12	Paterson, N. J.	June 30
July 12	Creston, Ia.	June 16
July 12	Clayton, Mo.	July 7
July 14	Excelsior Springs, Mo.	July 7
July 15	Larchmont, N. Y.	June 30
July 16	Racine, Wis.	July 7
July 19	Columbus, O.	July 7
July 20	Reading, Pa. Adv. July 7.	July 7

BRIDGES

July 11	Pikeville, Ky.	June 9
July 11	Catskill, N. Y.	June 23
July 11	Crowell, Tex.	July 7
July 12	Fremont, O.	July 7
July 12	Fox Lake, Ill.	July 7
July 14	Phila., Pa. Adv. June 30 and July 7.	June 30
July 15	Topeka, Kan.	June 30
July 16	Manchester, N. H. Adv. June 30 and July 7.	June 30
July 19	Groton, Conn.	July 7
July 20	Martha, W. Va.	July 7
July 22	Duluth, Minn.	July 7
July 22	Ohio	July 7
Sept. 7	Kingman, Kan.	June 30

STREETS AND ROADS

Bids Close		See Eng. News-Record
July 9	Lambertville, N. J. Adv. June 23 to July 7.	June 30
July 11	Kissimmee, Fla. Adv. June 16 to July 7.	June 23
July 11	National City, N. J.	June 16
July 11	Trinidad, Col.	June 30
July 11	Canyon City, Tex. Adv. June 23 to July 7.	June 30
July 11	Los Angeles, Cal.	June 30
July 11	California	June 30
July 11	Harrisville, W. Va.	June 30
July 11	Beattyville, Ky.	June 30
July 11	New York, N. Y.	July 7
July 11	Sturgis, S. D.	July 7
July 11	Louisiana	July 7
July 12	Albert Lea, Minn.	June 23
July 12	St. John, Mich.	June 30
July 12	Holly, Mich.	June 30
July 12	Pontiac, Mich.	June 30
July 12	Jefferson City, Mo.	July 7
July 12	Kirksville, Mo.	July 7
July 12	Camden, S. C.	July 7
July 12	Chicago, Ill.	July 7
July 12	Illinois	July 7
July 12	Anamosa, Ia.	July 7
July 12	Oshkosh, Wis.	July 7
July 13	New York Adv. June 23 to July 7.	June 30
July 13	Washington, N. J. Adv. June 23 to July 7.	June 30
July 13	Mason, Mich.	June 30
July 13	Brooklyn, N. Y.	July 7
July 13	Wisconsin	July 7
July 13	Marysville, Mo.	July 7
July 13	Rusk, Tex.	July 7
July 13	Ontario	July 7
July 14	Fort Huron, Mich.	June 30
July 14	Adrian, Mich.	June 30
July 14	Charlotte, Mich.	June 30
July 14	Sturgis, Mich.	June 30
July 14	Maine	June 30
July 14	Wisconsin	July 7
July 14	Easton, Md. Adv. June 30 and July 7.	July 7
July 14	Closter, N. J. Adv. July 7.	July 7
July 14	Algonac, Mich.	July 7
July 14	Maine	July 7
July 14	Brooklyn, N. Y.	July 7
July 14	New York N. Y.	July 7
July 15	Palestine, Ill.	June 23
July 15	Carbondale, Ill.	June 23
July 15	Flint, Mich.	June 30
July 15	Wisconsin	July 7
July 15	Missouri	July 7
July 15	Tacoma, Wash.	July 7
July 18	California	July 7
July 18	New Florence, Pa. Adv. July 7.	July 7
July 18	Nevada, Mo	July 7
July 18	Nova Scotia	July 7
July 18	Halifax, N. S.	July 7
July 19	Adrian, Mich.	June 30
July 19	Columbus, O.	July 7
July 19	Montana	July 7
July 19	North Carolina	July 7
July 20	Boone, Ia.	June 30
July 20	Pipestone, Minn.	July 7
July 20	Jackson, Minn.	July 7
July 20	Delaware Adv. July 7.	July 7
July 20	Minnesota	July 7
July 20	San Augustine, Tex.	July 7
July 21	Minnesota	July 7
July 22	Duluth, Minn.	June 23
July 22	Elkins, W. Va.	July 7
July 22	Duluth, Minn.	July 7
July 22	Ohio	July 7
July 25	Salem, N. J. Adv. July 7.	July 7
July 26	Alabama	June 23
July 26	Alabama	July 7
Aug. 1	Highland, Ill.	June 30
Aug. 2	Alabama	July 7
Aug. 4	Wichita, Kan.	July 7
Aug. 9	Syracuse, Kan.	July 7

EXCAVATION AND DREDGING

July 11	Milwaukee, Wis.	June 23
July 11	Mount Ayr, Ia.	July 7
July 12	Bedford, Ia.	July 7
July 15	Henderson, Minn.	July 7
July 15	New York, N. Y.	July 7
July 15	Olivia, Minn.	July 7
July 25	Welland, Ont.	July 7
July 27	Wisconsin Rapids, Wis.	July 7
Aug. 10	Ottumwa, Ia.	July 7

INDUSTRIAL WORKS

July 11	Mt. Clemens, Mich.	July 7
July 12	Des Moines, Ia.	July 7
July 13	Traverse City, Mich.	June 30
July 18	North Hackensack, N. J. Adv. July 7.	July 7
July 20	Delaware Adv. July 7.	July 7

BUILDINGS

Bids Close		See Eng. News-Record
July 11	Janesville, Wis.	June 23
July 11	Burlington, N. J.	June 23
July 11	Appleton, Wis.	June 30
July 11	Milton, Pa.	June 30
July 11	Johnstown, Pa.	June 30
July 11	Denison, Tex.	July 7
July 11	Buffalo, N. Y.	July 7
July 12	Oswego, N. Y.	June 16
July 12	Norfolk, Va.	June 16
July 12	Middletown, O.	June 30
July 12	Nodaway, Ia.	June 30
July 12	Rapid City, S. D.	June 30
July 12	Omaha, Neb.	July 7
July 12	New York, N. Y.	July 7
July 12	Buffalo, N. Y.	July 7
July 12	Bemidji, Minn.	July 7
July 12	Pendleton Ore.	July 7
July 13	Buffalo, N. Y.	July 7
July 13	Wichita, Kan.	July 7
July 13	Minneapolis, Minn.	July 7
July 14	Fergus Falls Minn.	June 23
July 14	St. Paul, Ind.	June 30
July 14	Lincoln, Ind.	June 30
July 14	Sheboygan, Wis.	July 7
July 14	Wyandotte, Mich.	July 7
July 14	Winnipeg, Man.	July 7
July 15	Durham, N. C.	June 16
July 15	Ottumwa, Ia.	June 16
July 15	Kenosha, Wis.	June 16
July 15	Ravenna, O.	June 23
July 15	Richmond, Ind.	June 30
July 15	College Point, Tex.	June 30
July 15	Huntington, W. Va.	July 7
July 18	Hartford, Conn.	June 23
July 18	Duluth, Minn.	June 30
July 18	Hamilton, Ont.	July 7
July 18	Saulte Ste Marie, Ont.	July 7
July 19	Mansfield, O.	June 30
July 19	Barnum, Ia.	June 30
July 20	Fayetteville, N. C.	June 23
July 20	Sioux City, Ia.	June 30
July 20	Allendale, S. C.	July 7
July 21	Bay Village, O.	July 7
July 22	Baddock, Pa.	June 23
July 26	Winnipeg, Man.	July 7
Aug. 1	Superior, Wis.	June 30
Aug. 2	Harrisburg, Pa. Adv. July 7.	July 7

FEDERAL GOVERNMENT WORK

July 11	Officers Quarters—Stapleton, S. I., N. Y.	June 23
July 11	Mechanical Equipment — Stapleton, S. I., N. Y.	June 23
July 11	Buildings—Dawson Springs, Ky.	June 30
July 11	Mechanical Equipments — Dawson Springs Ky.	June 30
July 11	Sub. Station—Dawson Springs, Ky.	June 30
July 11	Levee Work — Memphis, Tenn. Adv. July 7.	July 7
July 12	Maling Vestibule—Pontiac, Mich.	June 30
July 13	Water System Extension—Puget Sound, Wash.	June 23
July 13	Sanatorium Bldg.—Dawson, Springs, Ky.	June 30
July 15	Main and Sub Laterals—Sidney, Mont.	June 9
July 15	Dredging—Baltimore, Md. Adv. June 16, 23 and July 7.	June 23
July 15	Submerged Riprap Spurs — Galveston, Tex.	July 7
July 20	Fire Alarm System—New York, N. Y.	July 7
July 20	Dredging—San Francisco, Cal.	July 7
July 22	Dredging — Providence, R. I. Adv. July 7.	July 7
July 22	Towboat — Vicksburg, Miss. Adv. June 30 and July 7.	July 7
July 25	Lock Valves — Pittsburgh, Pa. Adv. June 30 and July 7.	July 7
July 27	Sprinkler System—San Diego, Cal.	July 7
July 27	Double Houses—Wheeling, W. Va. Adv. June 30 and July 7.	July 7
July 29	Dredging — New York, N Y. Adv. July 7.	July 7

Bids Close		See Eng. News-Record
Aug. 1	Removing Boulder—Providence, R. I. Adv. July 7.	July 7

MISCELLANEOUS

July 11	Culverts—Gilmer, Tex.	July 7
July 12	Shafts—Jersey City, N. J. Adv. June 23 to July 7.	June 23
July 12	Paint—New Orleans, La. Adv. July 7.	July 7
July 12	Lumber, etc.—New Orleans, La.	July 7
July 12	Heating and Ventilating Apparatus—Morris Park (Jamaica P. O.), N. Y.	July 7
July 13	Crushed Rock Sand—Phila., Pa.	July 7
July 15	Wharf—Le Pas, Manitoba	June 23
July 15	Steam Shovel, etc.—Calhoun, Mo.	July 7
July 15	Pier and Platform—New York, N. Y.	July 7
July 16	Street Cleaning Machine—West Allis, Wis.	July 7
July 17	Dock—Quebec, Que.	July 7
July 17	Harbor Improvements — Port Arthur, Ont.	July 7
July 20	Pavilion — Central Islip, N. Y. Adv. July 7.	July 7
July 21	Culvert, Ontario	July 7
July 30	Pumps—London, Ont.	June 23
Aug. 14	Victoria, Australia	June 2

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. J., Gloucester—Remington & Vosbury, engrs., 6th and Market Sts., Camden, open bids about July 12, building waterworks system, consisting of electrical power pumps and pumping mains, etc., for city. About $200,000. Noted March 31.

Ind., Indianapolis — Indianapolis Water Co., Monumental Circle, plans to build 1 story, brick addition to filtration beds, sufficient to handle 10,000,000 gal. daily. About $300,000. Private plans.

Ill., Washington—City plans to increase waterworks capacity from 200,000 to 400,000 gal. per 24 hours. About $75,000. A. J. Keil, clk. Engineer not selected.

Wis., Milwaukee—City having plans prepared building feeder watermains on Chambers St. from Humboldt to 9th Sts., involving 7,000 ft. 42 to 48 in. c. i. or steel pipe. About $200,000. G. F. Staal, City Hall, engr.

Wyo., Rawlins—City having plans prepared constructing 30 mi. water main from here to Sage Creek, 12 in. cast-iron pipe, to cost, $586,800; vitr. clay pipe, $237,600. Election soon to vote on bonds for project. C. C. Carlisle, Cheyenne, engr.

Mo., Craig—City having surveys made improving waterworks and electric light plant. About $40,000. E. T. Archer & Co., New England Bldg., Kansas City, engrs.

Mo., Poplar Bluff—City having plans prepared building addition to waterworks system and relaying 2, 4 and 6 in. mains. About $27,000. S. Pottinger, clk. A. E. Hecker, Poplar Bluff, engr.

Tex., Port Arthur—See "Sewers."

Okla., Cordell—City having plans prepared for diversion dam, flume and filtration plant. About $95,000. H. G. Olmsted & Co., 415 Oil Exch. Bldg., Oklahoma City, engrs.

Okla., Fairfax—City plans election soon to vote on $40,000 bonds to extend distributing system and install pumping equipment. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Okla., Pryor Creek—City had plans prepared for water purification plant, 750,000 gal. daily capacity. About $75,000. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma City, engrs.

Okla., Spavinaw—City voted $225,000 bonds, $200,000 of which will be used for additional work to present waterworks and other $25,000 for preliminary surveys.

Col., Siebert—City plans to build waterworks system. Bonds for $50,000 voted for project. W. B. Rollins Eng. Co., 209 Ry. Exch. Bldg., Kansas City, Mo., engrs. Noted June 16.

BIDS DESIRED

N. Y., Ilion—Until July 15, by Bd. Water Comrs. improving waterworks system. G. Rasbach, clk. J. P. Wells, Cutler Bldg., Rochester, hydraulic engr.; advertised in this issue.

Mich., Howell—Until July 12, by G. E. Dailey, city clk., improving waterworks system; advertised in this issue.

Minn., Forest Lake—Until July 14, by city, completing waterworks system, involving (1) 27,800 lin.ft. 4-8 in. c.i. pipe, forty two 4-8 in. gate valves and boxes, 57 hydrants, 23,200 lbs. c.i. specials; (2) one 75,000 gal. steel tower and tank; (3) one 100,000 gal. steel tower and tank (2 and 3 alternatives). About $70,000. T. D. Arends, recdr. Druar & Milinowski, 500 Globe Bldg., St. Paul, engrs. Noted June 30.

Wash., Marysville — Until July 25, at office of W. S. Meyers, town clk., constructing waterworks system, in and adjacent to here. Stevens & Koon, Spalding Bldg., Portland, Ore., engrs.; advertised in this issue.

Ont., Wingham—Until July 19, by town care of W. A. Galbraith, drilling and casing deep well, supplying and installing 1 electric centrifugal pump, 500 gal. per minute capacity, and building pumphouse. About $25,000. Chipman & Power, Mail Bldg., Toronto, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Cambridge—City let contract constructing rein.-con. filtration works, at Fresh Pond, to Coleman Bros. Inc., Charlestown, $791,300. Noted May 5.

★Tenn., Nashville—City let contract for rein.-con. grit chamber, pump station, superstructure improvements, 20 ton electric crane, pumping engine foundations and appurtenances, suction and discharge piping, valves and appurtenances, water proof lining for reservoir and removal of existing Worthington pumping engines, to W. S. Rae, Oliver Bldg., Pittsburgh, Pa. About $200,000. Noted May 5.

O., Cleveland—See "Sewers."

O., Cleveland Heights (Warrensville P. O.)—Consolidated Allotment Co. c/o F. A. Pease Eng. Co., engrs., Marshall Bldg., Cleveland, received bids laying 1,800 ft. 6 in. c.i. watermains and 4,020 ft. 12-30 in. vitr. sewer in Grosvenor and Cummins Rds., from Hadded-Mall Co., Schofield Bldg., Cleveland, $33,417; Curro Bros., 12216 Murray Hill Rd., Cleveland, $33,855.

O., Columbus—W. H. Duffy, dir. Pub. Serv. received bids June 28, extending water works system, consisting of 8 rapid sand filters, having total capacity of 24,000,000,000 gal. daily, also addition to filtered reservoir of about 6,000,000 gal. capacity, etc., from Pitt Constr. Co., Fulton Bldg., Pittsburgh, $362,947; Stange Constr. Co., Wash., D. C., $366,120; States Contg. Co., Chicago, $410,683. Noted June 9.

★Wis., Monroe—City let contract laying c.i. water mains in various streets, to C. T. Thorn, Oshkosh, $34,309. Noted June 9.

★Wash., Seattle — See "Streets and Roads."

Sewers

PROPOSED WORK

N. J., Millville—City having plans prepared building 6 mi. 8-24 in. vitr. sewer in various streets on west side. About $150,000. N. Wade, Millville, engr.

Pa., Aldan—City receives bids about Aug. 26, building 5 mi. sewerage system involving 8-12 in. vitr. pipe. About $50,000. A. F. Danon, Jr., Darby, engr. Noted June 30.

Pa., Phila.—City plans to build 36,452 ft. 2 x 3 ft. brick sewers in Gulf Rd. and following streets: London, McKean, Melville, Mentor, Mercer, Nassau, Nedro, Church, Hope, Kensington, Lunkiln, Lebanon, L. Latona, Hanson, Hartwell, Earl, Florence, 52d, Chester, Beaumont, Emely, Hancock, Granite, 18th, 59th, Folsom, Buist, Berks, 49th, Alman, Arlington, Ashland, Bambrey, Broad, Fisher, 57th, 15th, Columbia, Emery, Cemetery, Clamplost, Ella, Ognotz St. from Churchlane to Godfrey Sts. and from Churchlane to Nedro Sts., C St. from Roosevelt Blvd. to Roscomb St. and from Eleanor to Roscomb Sts. Total cost $637,400. F. Craven, City Hall, engr.

Ill., Galva — City having revised plans prepared constructing sewers and sewage disposal plant. About $25,000. C. Aby, clk. Stokes Eng Co., Kewanee, engrs.

Tex., Port Arthur—City plans election to vote on $290,000 bonds to build sewers and watermains, also $20,000 bonds to build incinerator. C. W. Hughes, city engr.

Okla., Commache — City voted $150,000 bonds to build sewage disposal plant.

Wash., Tacoma—Comrs. Pierce Co. received no bids June 22 replacing present wooden sewer in Buckley Gulch. About $183,000. J. C. Manley, Tacoma, engr. Noted April 28.

BIDS DESIRED

Pa., Reading — Until July 20, by City Clerk, building concrete storm sewer in North 2d St. from Elm to Greenwich Sts. E. B. Ulrich, city engr.; advertised in this issue.

O., Columbus—Until July 19, by W. H. Duffy, dir. Pub. Serv. building sanitary sewers in alley west of Monroe Ave. from alley north of Mt. Vernon to Leonard Aves., Christopher from Schumacher Ave. to alley south of Leonard Ave., and in alley west of Taylor Ave. from alley north of Harvard Ave., north. About $27,000.

Wis., Racine—Until July 16, by Farm Drainage Bd. building sewers in Dist. 1, involving 29,240 ft. 6 to 27 in. tile drains. J. English, Kansasville, secy. M. Dodge, Washington Bldg., Madison, engr.

Mo., Clayton—Until July 12, by city, building concrete tank and 6-8 in. sewers in various streets. About $25,000. E. Rapp, Commercial Bldg., engr.

Mo., Excelsior Springs—Until July 14, by city, laying 10-18 in. vitr. tile sewers and building disposal plant. About $60,000. Shockley Eng. Co., Graphic Arts Bldg., Kansas City, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Brooklyn—E. Riegelmann, boro. pres., Borough Hall, received bids June 22 repairing sewer in 60th St. between 15th and 19th Aves., from J. S. Cogan Co., 233 Bway., New York City, $208,850; T. J. Heiley, $215,150; Necaro Co., Inc., 97 Court St., $243,400.

★N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., let contract building sewer and appurtenances in West 187th St. and Ft. Washington Ave., to Slattery Eng. & Contg. Co., 7 East 42d St., $43,819. Noted June 30.

★N. Y., Syracuse—Intercepting Sewer Comn. let contract building outfall sewer to Onondaga Lake, to C. T. Hookway, Bastable Bldg., $71,992; outfall sewer from water line of lake, to T. A. Scott, 292 Pequot Ave., New London Ave., $65,183. Noted June 16.

★Pa., Oakmont—Haverford Twp. let contracts building various roads, Sects. 1 and 3, to Oneill Co., 127 East Mermaid Lane, Phila., $71,490 and $52,490, respectively; Sect. 4, to Amer. Paving & Material Co., 207 South 9th St., Phila., $58,654; Sect. 5, to F. L. Ramsdale & Co., Phila., $62,800; Sect. 6, to L. Mariani & Co., Phila., $63,710; Sect. 7, to A. J. and D. M. Fraser, Phila., $48,145; Sect. 2, to Larson Underpining & Constr. Co., Phila., $45,903.

★Pa., Reading—City let contract building house sewer trunk line, to J. O'Rourke, 407 Douglass St., Reading, $133,600. Noted June 9.

O., Cleveland Heights (Warrensville P. O.)—See "Waterworks."

★O., Cleveland—City let contract laying 5,890 ft. 12-36 in. vitr. sewer in Mt. Overlook Ave., East 124th, 126th and 127th Sts., to Salem & George Bros., 237 Bradley Court, $32,227. Noted June 30.

O., Cleveland—City received bids building sewer in Sect. 1 Central Ave., from Gallagher Burke Constr. Co., 1339 Irene Ave., $47,630, Manson Co., Engineers Bldg., $49,650; in Sect. 2, from S. Amatto, 343 The Arcade, $35,541, W. McDowell & Son, 10319 Miles Ave., $36,308. Noted June 23.

O., Cleveland—Cedarbrook Land Co., c/o F. A. Pease Eng. Co., engrs., Marshall Bldg., received bids building sewers and watermains in (1) Wynn Rd., (2) Raymont Blvd., (3) Tullmore Rd., (4) Cedarbrook Rd., (5) Jackson Blvd., involving 10,675 ft. 6-8 in. c.i. and 18,080 ft. 12-30 in. vitr. pipe, from A. Marra, Illuminating Bldg., (1) $2,082, (2) $17,969, (4) $1,060, (5) $12,547; Hadded Mall Co., Schofield Bldg., (1) $2,188, (3) $9,969, (5) $12,902; Curro Bros., 12206 Murray Hill, (2) $18,428, (3) $9,439, (4) $1,060.

Mich., Detroit—City received bids building (1) Mack Ave. sewer, (2) Kirby Ave. Arm Sewer, (3) Sect. 8, Seven Mile Rd. Sewer, (4) Sects. 1 and 2, Seven Mile Rd. Sewer, from J. A. Mercier, 216 Hammond Bldg., (1) $45,597, (2) $60,629; R. H.

Sewers (continued)

Hidey Co., 400 **Penobscot Bldg., (1) $52,970; W. Porath, 1410 West** Grand Blvd., (1) $51,852; R. A. Mercier 6 Campau Bldg., (2) $63,531; C. A. Handyside, Constr. Co., Northwester Ave., (2) $67,087; Gawne Constr. Co., 624 Penobscot Bldg., (3) $103,545; W. Blanck Co., 827 Ford Bldg., (3) $96,019; R. D. Baker, 1631 Elmhurst Ave., (3) $103,345; Gaas Thurston Co., (4) $816,486; Nash Bros., Lonyo and Kirkwood Aves., (4) $549,684; Booth & Flynn, 17 Battery Pl., New York City, (4) $771,668. Noted June 16.

★Ill., Marion—City let contract constructing sewers and sewage disposal plant, involving 6 to 12 in. vitr. pipe, to B. S. Craine & Co., 312 West Main St., Carbondale, $158,328.

★Wis., Monroe—City let contract building sanitary and storm sewers in various streets, to C. T. Thorn, Oshkosh, $6,711 and $14,522 respectively. Noted June 9.

★Minn., Stillwater—City let contract constructing outfall sewer in Mulberry St., to McGee, Nolan & Brotherton, Stillwater, $62,699. Noted June 16.

★Minn., Twin Valley—City let contract building 11,710 lin.ft. 8-10 in. sewer, etc. in various streets, to O'Neil & Preston, 608 Exch. Bank Bldg., St. Paul, $27,208. Noted June 2.

★S. D., McLaughlin — City let contract building sewerage system and disposal plant, involving 5,500 lin.ft. 8-15 in. vitr. tile, to Mobridge Plumbing & Heating Co., Mobridge. About $58,000. Noted May 12.

★S. D., Springfield—City let contract laying 20,000 ft. 8-15 in. vitr. clay sewer pipe, to W. B. Carter, 606 United Bank Bldg., Sioux City, Ia. Noted March 10.

Ore., Portland—City received bids building Foster Rd. sewerage system, involving 86,931 cu.yd. earth excav., 7,901 ft. 6-27 in. vitr. or concrete pipe, 11,841 ft. 36-78 ft. segmental block or rein.-con. pipe, etc. J. F. O'Shea, 112 North 19th St., $338,634; Hausen Constr. Co., Henry Bldg., $338,858, alternate $321,858; Jacobson Jensen Constr. Co., 407 Stanton St., $353,502.

Bridges

PROPOSED WORK

N. Y., Lancaster—Town voted $33,000 bonds to build steel and concrete bridge on Schwartz Rd. A. R. Krehbiel, Lancaster, engr.

North Carolina—State Highway Dept., Raleigh, plans to build bridge across Roanoke River at Edwards Ferry. About $145,000. C. Upham, state highway engr.

N. C., Halifax—See "Streets and Roads."

O., Columbus—J. R. King, prosecutor of Franklin Co., rescinded contracts for building structural steel bridge over Scioto River on Sandusky St. Noted June 23.

Minn., Marshall—Lyon Co. plans to build Bridge 3521 over Yellow Medicine River, Westerheim Twp., to have four 30 ft. beam spans, rein.-con. abutments. About $25,000. R. D. Houdersheldt, aud. state highway comr., 920 Guardian Life Bldg., St. Paul, engrs.

Missouri—State Highway Dept., Jefferson City, plans to build three 70 ft. pony truss spans, etc., on road from Butler to Rich Hill, Federal Aid Project 167, Bates Co., involving 129.5 cu.yd. Class A, 188.2 cu.yd. Class B and 121.2 cu.yd. Class C concrete, 28,240 lb. reinforcing and 99,600 lb. fabricated structural steel, etc. About $32,000. A. Graham, state highway engr.

Tex., Madisonville—Madison Co. having plans prepared for 1,000 lin.ft. creosoted timber bridges, 16 ft. roadway. S. C. McCarty, co. engr.

Okla., Enid — Garfield Co. receives bids about Aug. 1, building concrete bridges and culverts, to include 2 x 2 ft. culverts, 40 ft. slab and girder bridges, one 70 ft. cantilever bridge and possibly one 200 ft. low water bridge. About $200,000. F. W. Denner, Enid, engr.

BIDS DESIRED

Conn., Groton (New London P. O.)—Until July 19, by C. J. Bennett, state highway cmr., 240 Farmington Ave., Hartford, fabricating and erecting superstructure of bridge over Mystic River, between here and Stonington; advertised in this issue. Noted June 16.

Ill., Fox Lake—Until July 12, at office of C. E. Russell, Lake Co. supt. highways (Waukegan), building 63 ft. span steel lattice truss bridge, with concrete flooring and sidewalks, over Nippersink Channel, here, for village and Lake Co.

W. Va., Martha—Until July 20, by Comrs. Cabell Co., (Huntington), building 100 ft. span bridge, 16 ft. roadway, creosoted wood block floor, over Mill Creek, near here. J. N. Doyle, Huntington, engr.

Ohio—Until July 22, by State Highway Dept., Columbus, building bridges in following counties:

Putnam Co., Sect "J" Lima-Ottawa Rd., $7,326.

Cuyahoga Co., Sect. "J" Twinsburg-Elyria Rd., $31,250.

Lake Co., Sect. "J" Cleveland-Buffalo Rd., 0.16 mi., $115,218.

Logan Co., Sect. "B" Bellefontaine-Marysville Rd., $7,806. E. S. Smith, state highway engr.

O., Fremont—Until July 12, by Comrs. Sandusky Co., building 350 ft. concrete bridge, to have 5 arches, over Sandusky River, on State St. About $225,000. Braun, Fleming, Knollman & Prior, 233 South High St., Columbus, engrs. Noted Feb. 10.

Wisconsin—See "Streets and Roads"

Minn., Duluth—Until July 22, by F. W. Borgin, aud. St. Louis Co., building one 40 ft. concrete arch on Federal Aid Project 201; one 120 ft. bridge having three 40 ft. concrete slabs; one 38 ft. and one 56 ft. concrete arches; one 60 ft. bridge having three 20 ft. slabs; one 90 ft. arch; one 80 ft. steel truss; nine concrete structures, ranging from 20-30 ft.; one 240 ft. and one 416 ft. steel viaducts, etc. Work involves 4,000 cu.yd. rein.-con. and 300 ton steel. Above bridges to be built on North Shore Rd. of Miller Trunk Highway, north of here, near Embarras. About $400,000. R. W. Acton, co. engr.

Tex., Crowell—Until July 11, by G. L. Burk, judge Foard Co., building 0.151 mi. creosoted timber pile trestle bridge and two 34 ft. I beam bridges over Wichita River, between Foard and Knox Counties, involving 25,430 lb. steel, 5,765 lin.ft. wooden piling, etc. About $25,500. L. Noland, Crowell, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Lynn—State Highway Dept., 18 Tremont St., Boston, received bids building 663 ft. steel girder bridge, masonry pilings and concrete flooring, over Saugus River, here, from Aberthaw Constr. Co., 27 School St., Boston, $125,467; Bay State Dredging & Constr. Co., 62 Condor St., East Boston, $136,534; Coleman Bros., Charlestown, $139,565. Work involves 900 cu.yd. rein.-con. 525 ton steel, 1,200 cu.yd. stone, 20,000 lin.ft. piling, etc. Noted June 30.

★Massachusetts — State Highway Dept., 413 State House, Boston, let contract constructing 2 concrete bridges, on state highway, in Williamstown, Lanesburg and New Ashton, to Rendle-Stoddard Co., Chelsea, $42,006.

Conn., Groton—State Highway Dept., 240 Farmington Ave., Hartford, received bids June 28, constructing sub-structure and approaches to Mystic River Bridge, between here and Stonington, from J. E. Fitzgerald Co., State and Main Sts., New London, $73,063; C. W. Blakeslee & Sons, 57 Waverly St., New Haven, $96,690; T. F. McGovern, 95 Main St., Southbridge, $105,003. Noted June 16.

★Pa., Phila.—City let contract building approaches from parkway to Art Museum, to E. A. Midlen, 5512 Vine St., $66,542.

★North Carolina—State Highway Comn., at div. office, Durham, let contract constructing bridges on State Aid Projcet 560, involving 1,696 cu.yd Class A concrete and 178,940 lb. reinforcing steel, etc., to Hobbs & Kitchen, Blacksburg, S. C., $53,814. Noted June 23.

★S. C., Lanes—Bd. Comrs. of Santee Bridge Dist., at Chamber of Commerce Bldg., Charleston, let contract constructing approaches of highway bridge over Santee River, here, between Williamsburg and Berkeley Counties, to Reed & Low, Charlotte, N. C. About $620,000. Noted June 9.

★Alabama—State Highway Dept., Montgomery, let contract building concrete bridges on Sect. A, road from Talladega to Calhoun Co. line, also bridge over Chocolloco Creek on road from Talladega to Calhoun Co. line, to Stanley & Singer Constr. Co., La Fayette, $26,801 and $27,917, respectively. Noted June 30.

★Kentucky — State Highway Comn., Frankfort, let following contract removing old bridge and building 90 ft. steel clear span, sheet asphalt surface, at Sta 4 plus 18, for Bell Co., superstructure, to Louisville Bridge & Iron Co., 11th and Oldham Sts., Louisville, $33,335; substructure, to G. M. Eady Co., Brook St. between A and Lee Sts, Louisville, $40,662.

★Ill., Danville—City let contract building 1,038 ft. bridge, 30 ft. wide, to have 8 girder spans, 6 arch spans, two 6 ft. sidewalks, over Vermillion River, to M. Yeager & Son, Danville. About $250,000.

★Wis., Racine—Bd. Pub. Wks. let contract building rein.-con. bridge on West 6th St., to McGucken Constr. Co., 425 East Water St., Milwaukee, $133,900. Noted June 30.

Wis., Rice Lake—City received bids building 220 ft. rein.-con. brdge, 24 ft. roadway, two 6 ft. walks, over Red Cedar River, from Blake Constr. Co., 627 South River St., Appleton, (steel truss type) $28,350; Stein Constr. Co., 204 Grand Ave., Milwaukee, (concrete arch type) $36,802.

★Kan., Belleville—Republic Co. let contract building rein.-con. bridge over Republic River, to have three 100 ft. steel spans to Pioneer Constr. Co., New York Life Bldg., Kansas City, $28,676.

★Kan., Wichita—Sedgwick Co. let contract building 6 rein.-con. bridges, to M. R. Aumerman, Wichita, $51,827.

★Tex., Lufkin—Angelina Co. let contract building 1,200 ft. creosoted pile trestle bridges on State Highway 35, involving 9,100 lin.ft. wooden piling, 61,064 ft. treated and 73,276 ft. untreated timber, to Austin Bros. Bridge Co., Coombs St., Dallas, $27,286 including 10 per cent for engineering and contingencies.

Tex., Wharton—Wharton Co. received bids building rein.-con. trestle bridge over San Bernando River, between Wharton and Ft. Bend Counties, (a) 880 ft., concrete slab bridge with abutments and intermediate pier bents of the open type or as alternate, (b) pre cast concrete pile bents, from Walsh & Burney, 301-2 Hicks Bldg., San Antonio, (a) $65,413, (b) $56,345; Dodds & Wedegartner, San Benito, (a) $65,577, (b) $58,073; C. S. Basham & Sons, Rusk and Caroline Sts., Houston, (a) $72,481, (b) $61,039. Noted Jun. 23.

Col., Monte Vista—State Highway Comn., Denver, received bids building 150 ft. concrete and steel bridge across Rio Grande River, near here, from Monarch Eng. Co., West Colfax and Larimer Sts., Denver, $30,160; Colorado Bridge & Constr. Co., Gas & Electric Bldg., Denver, $31,288; H. W. Fox, Florence, $31,874. Noted June 16.

★California—State Highway Comn., 515 Forum Bldg., Sacramento, let contract constructing rein.-con. girder bridge, having two 34 ft. spans, across Long Valley Creek, Sta. 411-50, to C. H. Gildersleeve, Fresno. Noted June 3.

Streets and Roads

PROPOSED WORK

N. H., Dover—City plans to permanently pave various streets. About $30,000. Address Dept. Pub. Wks., City Hall.

Rhode Island—State Highway Dept., Providence, plans to resurface 1.9 mi. Barrington Parkway from Warren Ave. southerly, in East Providence, bituminous macadam. Address Metropolitan Park Comn., State House, Providence.

N. J., Mt. Holly—City having plans prepared improving various streets. About $40,000. Haines & Sherman, Temple Bldg., Camden, engrs.

N. J., Salem—Bd. Freeholders Salem Co. having plans prepared paving 4 mi. road from Woodstown toward here. About $180,000. H. Keasby, Mecum Bldg., engr.

Pa., Phila.—City plans to grade portion of 19th, Almond, Arlington and Belmar Sts., involving 2,824 ft. 80 ft. wide.

Folsom, Luzerne and 57th Sts., involving 6,272 ft., 50 ft. wide.

Nassau, Mercer, Melville, Mascher, 53d, 52d, 49th, 4th, Erdrick, Ella, Berks, Beaumont, B, Avondale, American, Oxford, Percy, Salmon, Schiller, Ruscomb, Sprague, Thompson, Tiago, 10th, Trinity, 13th, 22d, Windsor and Walker Sts., Rising Sun, Roberts, Lindley, Montgomery, Benson, Chelwynde, Columbia, Fisher, Abbottsford, Malvern and Buist Aves., York Rd. and Limekiln Pike, involving 114,792 ft., 60 ft. wide. F. Dunlap, city engr.

North Carolina—State Highway Dept., Raleigh, plans to grade and pave 9.57 mi. State Aid Project 609, Pitt Co., involving 10,000 cu.yd. grading and 90,000 sq.yd. concrete, topeka or asphalt, about $260,000; grading, scarifying, reshaping and paving 2.28 mi. State Aid Project 591, Union Co., involving 3,330 cu.yd. grading, 18,735 sq. yd. topeka or sheet asphalt, about $62,000; clearing, grubbing, draining, grading and topsoiling 12 mi. road from Scotland Neck to Rich Square, State Aid Project 602, Halifax and Northampton Counties, about $55,000. C. Upham, state highway engr.

North Carolina—State Highway Comn., Raleigh, plans to grade, drain and pave 2.65 mi. road from Bridgeton to Broad Creek, State Aid Project 516, Craven Co.,

Streets and Roads (Continued)

concrete, about $112,000, 4.8 mi. road from Weldon to Roanoke Rapids, State Aid Project 601, Halifax Co. cement or asphaltic materials, $150,000; grade, drain and surface 5 mi. road from north end of Federal Aid Project 86-A to Windsor, State Aid Project 604, Bertie Co., topsoil, $30,000, 18 mi. road from Greenville, via Grimesland to Beaufort Co. line, State Aid Project 608, Pitt Co., topsoil $100,000; grade, drain, bridge and surface 7.16 mi. road from Forsyth-Stokes Co. line to Rockingham Co. line, State Aid Project 543, Stokes Co., topsoil for sand clay, $40,000. C. Upham, state highway engr.

North Carolina—State Highway Comn., Raleigh, having plans prepared grading, draining, bridging and surfacing 10.2 mi. road from Transylvania Co. line to Hendersonville, State Aid Project 570, Henderson Co., gravel, about $110,000, 7.2 mi. road from Sta. 813 of Federal Aid Project 84B, near Marion, toward Asheville to Sta. 1237, State Aid Project 571, McDowell Co., sand clay, $57,000, 12 mi. road from Jefferson to Wilkes Co. line, State Aid Project 533, Ashe Co., gravel, $75,000, 11 mi. road from Caswell Co. line to Graham, State Aid Project 555, Alamance Co., topsoil, $60,000, 7 mi. road from near Doughton to State Rd., State Aid. Project 549, Surry and Wilkes Counties, topsoil, $30,000; clearing, grubbing, grading, draining, bridging and surfacing 7 mi. road from end of Federal Aid Project 100B, to Mitchell Co. line, State Aid Project 575, Avery Co., gravel, $50,000; clearing, grubbing, draining, grading, bridging, topsoiling and paving 6.8 mi. road from Washington Co. line to Scuppernong River, State Aid Project 558, (0.8 mi. to be paved with concrete), Tyrrell Co., $75,000; grading, draining, clearing, grubbing, bridging and paving 20.3 mi. road from Edenton to Gates Co. line, State Aid Project 563, Chowan Co., $480,000, 27.6 mi. road from Lenoir Co. line to Craven Co. line, State Aid Project 536, Jones Co., $580,000, latter project to be paved with concrete or some asphaltic type. C. Upham, state highway engr.

N. C., Durham—City plans to pave 60,000 sq.yd. street and 15,000 sq.yd. sidewalks. About $230,000. H. W. Kueffner, Durham, engr.

N. C., Halifax—Halifax Co. plans to construct and improve various roads and bridges. About $250,000. C. F. Gore, Weldon, engr. and supt.

N. C., Hendersonville — Henderson Co. plans to grade, drain, build bridges and surface 20 mi. roads, some type of hard surface. About $600,000. H. G. Bailey, Hendersonville, engr.

N. C., Hillsboro—Orange Co. plans to improve and construct various roads and small bridges. About $25,000. R. H. Ward, Chapel Hill, Chn. Bd. Co. Comrs.

Fla., Wauchula — City plans election to vote on $75,000 bonds to build 3.3 mi. various streets, brick or concrete. J. C. McEwen, clk.

La., New Orleans—City plans to pave Audubon St. from St. Charles to Zimple Aves., Audubon St. from Green to South Clairborne Sts., Broad St. from Canal to Washington Aves., Elmira St. from St. Cloude Ave. to Florida Walk, Elm St. from Upper Foucher Line to Adams St., Freret St. from Napoleon Ave. to Upper Foucher Line, Gravier St. from South Franklin to South Clairborne Sts., Howard St. from Calliope to Napoleon Aves., Poplar St. from Upper Foucher Line to Carrolton Ave., Willow St. from Napoleon Ave. to Upper Foucher Line, repave Esplanade Ave. from Board to Moss Sts., Elysian Fields St. from Burgundy to North Clairborne Sts., Chartres St. from Lafayette to Poland Sts., North Clairborne Ave., Riverside) from Esplanade to Elysian Fields Aves., North Clairborne Ave. (lake side) from Old Basin Canal to Esplanade Ave., Iberville St. from North Franklin to Clairborne Sts., Magazine St. from St. Joseph to Washington Aves., Thalia St. from Tchoupitoulas St. to Dock Blvd. roadway.

Tenn., Newport—City plans to pave various streets. About $200,000. J. B. McCalla, Newport, engr.

Ohio—State Highway Dept., Columbus, plans to drain, building bridges and culverts and pave 4 mi. Westerville Rd., Franklin Co., brick on 6 in. concrete base. About $145,000. E. S. Smith, state highway engr.

O., Columbus—City plans to grade, drain and pave 693 ft. alley west of Champion Ave. from Fulton to Marberry Sts., brick, $7,985, concrete $6,377; 6,900 ft. Leonard Ave. from 5th Ave. to Sunbury Rd., water-bound macadam, $9,165; bituminous concrete, $12,615; bitoslag, $22,965. R. H. Simpson, City Hill, engr.

Michigan—State Highway Dept., Lansing, plans to grade, drain and surface 2 mi. State Trunk Line Rds. 13-30 and 24-21, in Big Rapids, also 1¾ mi. State Trunk Line Rd. 29-3, in Coldwater, concrete or bituminous concrete. F. F. Rodgers, state highway comr.

Mich., Detroit—City plans to grade and pave Grand River Ave. from Joy Rd. to city limits, involving 23,000 sq.yd. sheet asphalt on 8 in. concrete foundation. About $110,000. C. W. Hubbell, city engr.

Mich., Detroit—City plans to pave with sheet asphalt on 8 in. concrete base Cortland Ave. from 12th St. to Wabash Ave., cost $6,370; Dane Ave. from Elmwood to Mt. Elliott Aves., $31,390; Manistique Ave. from Charlevoix to Mack Aves., $23,250; Kerwin Ave. from Shoemaker to Harper Aves., $40,380; Hazelwood Ave. from Lawton Ave. to Dexter Blvd., $35,440; Cascade Ave. from Joy Rd. to Burlingame Ave., $65,290; Lambert Ave. from Helen to Frontenac Aves., $10,050; Cherry Lawn Ave. from Grand River to Cortland Aves., $29,540; Yellowstone Ave. from Kay to Burlingame Aves., $46,730; Eastlawn Ave. from Mack to Canfield Aves., $40,390; Quincy Ave. from Boston Blvd. to Collingwood Ave., $16,570; Maxwell Ave. from Harper to Georgia Aves., $33,300; Gladstone Ave. from Linwood to Lawton Aves., $17,220; Edgevale Ave. from John R. to Brush Sts., $22,040. C. W. Hubbell, city engr.

Ill., Benton—Benton Twp. having surveys made grading and paving Thompsonville Rd., 16 ft. wide. About $46,000. C. B. Mautz, Benton, engr.

Ill., Benton—City plans to pave McLeansboro Rd., involving 5,702 ft. concrete, 4,705 lin.ft. integral curbing, 2,900 cu.yd. earth excav. Cost $28,498. C. B. Mautz, city engr.

Ill., Christopher—City plans to pave 30 blocks, State, Victor, Emma and Sylvia Sts., 24 ft. wide, brick, asphalt filler. C. B. Mautz, Benton, engr.

Ill., Frankfort Heights—Frankfort Twp. having surveys made grading, draining and building novaculite slab on 3½ mi. road 16 ft. wide. About $50,000. C. B. Mautz, Benton, engr.

Ill., Mt. Vernon—City having plans prepared surfacing 5 mi. various streets, 24 ft. wide, brick on concrete base. About $165,000. A. Westcott, clk. A. C. Stanfield, Pana, engr.

Ill., West Frankfort—Denning Twp. having surveys made grading, draining and paving 3½ mi. Pershing-Zeigler and Orient Rds., 15 to 18 ft. wide, novaculite. About $50,000. C. B. Mautz, Benton, engr.

Ia., Dennison—Crawford Co. had plans prepared and soon receives bids grading and draining 15.6 mi. primary road, Project 8; 4 mi. primary road south from Kiron, Project 4; 2½ mi. primary road southwest of Charter Oak and 3½ mi. northwest of here, Project 34; 5 mi. primary road west from Manilla, 26 ft. roadway, Project 45. Iowa Highway Comn., at div. office, Ames, Engrs.

Ia., Des Moines—City plans to pave and curb 15 blocks East 29th St. from Easton Blvd. to city limits, also Ingersall Ave. from West 28th to West 38th Sts., sheet asphalt. About $38,000. K. C. Kastberg, city engr.

Ia., Ida Grove—Ida Co. had plans prepared and soon receives bids grading and draining 13 mi. primary road, 8 mi. from Holstein through Galva to county line and 5½ mi. northwest from Battle Creek, Project 101. Iowa Highway Comn., at div. office, Ames, engrs.

Ia., Le Mars—Plymouth Co. had plans prepared and soon receives bids grading and draining 6.5 mi. Federal Aid Project 38, Sect. A, from here to Wren Junction; 14 mi. primary road north and south of here, Project 74; 20.6 mi. primary road 26 ft. roadway, Project 39. Iowa Highway Comn., at div. office, Ames, engrs.

Ia., Onawa—Monona Co. had plans prepared and soon receives bids grading and draining 11.074 mi. primary road from Mapleton through Ute to county line, Sect. "B," Project 38, involving 128,539 cu.yd. earth excav., 1,685 ft. 8-12 in. tile, etc.; 11 mi. primary road from Turin to Soldier, Sect. "C," Project 38, 151,984 cu.yd. excav., 200 ft. 12 in. tile, etc.; 10 mi. primary road from Soldier northeast to county line, Sect. "D," Project 38, 150,000 cu.yd. excav. Iowa Highway Comn., at div. office, Ames, engrs.

Ia., Orange City—Sioux Co. having plans prepared grading and draining 23 mi. primary road, 26 ft wide, east, west and south of Hull, Project 83. owa Highway Comn., at div. office, Ames, engrs.

Ia., Primghar—O'Brien Co. had plans prepared grading, draining and paving 28.3 mi. primary road east and west across county through Paullina and Sutherland, 18 ft. pavement, Project 69. Iowa Highway Comn., at div. office, Ames, engrs.

Ia., Rock Rapids—Lyon Co. having plans prepared grading and draining 16 mi. primary road, Project 85. Iowa Highway Comn., at div. office, Ames, engrs.

Ia., Sibley—Osceola Co. rejected bids opened June 23, grading 22 mi. secondary roads, involving 105,667 cu.yd. excav. About $30,000. W. H. Hilborn, Sibley, engr. Noted June 23.

Ia., Sioux City—City having plans prepared paving with concrete, asphaltic concrete, sheet asphalt or brick block, Clinton St. from Morningside to 4th Aves.; Main St. from 14th to 16th Sts; West Riverside Ave. from John to Leonard Sts.; 23rd St. from Clark to Chambers Sts.; Riverside Blvd. from south line Riverside Blvd. to south line Riverside Park addition. A. M. Schott, City Hall, engr.

Minnesota — State Highway Dept., 920 Guardian Life Bldg., St. Paul, having plans prepared and soon receives bids grading and graveling 4 mi. Trunk Highway 10, between Maple Plain an Long Lake, Hennepin Co., about $30,000; 27 mi. Trunk Highway 27, between St. Cloud and Little Falls, including bridge over Platte River, Stearns and Morrison Counties, about $135,000; 4 mi. Trunk Highway 8 from Cass Lake northwest, Cass Co., about $25,000. C. M. Babcock, engr.

Minn., St. Paul—Ramsey Co. rejected bids received June 27, grading and paving 5,452 ft. New Brighton Rd. from Northern Pacific tracks toward New Brighton, 20 ft. wide. About $28,000. R. R. Godfrey, co. engr. Noted June 9.

★**Minn., Two Harbors**—City rejected bids opened June 20, paving 8th Ave., 5th St. and alleys. About $25,000. Work will be done by day labor. L. Clapper, city engr. Noted June 9.

Kan., Salina—City plans to pave 25,000 yd. Republic Ave., Elm, Wilson, 9th and Ohio Sts., brick or asphalt. P. G. Wakenhut, Salina, engr.

S. D., Sturgis—City rejected bids opened May 16, paving various streets, involving 7,500 sq.yd. concrete. About $28,000. Will be readvertised. T. H. Johnson, Iowa Bldg., Sioux City, engr. Noted April 28.

N. D., Jamestown—City rejected bids opened June 6, paving 12 blocks various streets. About $35,000. Work postponed until 1922. H. H. Hurning, city engr. Noted May 26.

Mo., Clinton—City had plans prepared paving and curbing 11 blocks of North Washington and Jefferson Sts., 40 ft. wide, concrete. About $40,000. H. C. Allen, Clinton, engr.

Mo., Maplewood—City having plans prepared paving East Yale and West Yale Aves., involving 4,000 sq.yd. rein.-con., cost $25,000; Lindevar and Zyphar Places, 4,050 sq.yd. rein.-con., $25,000. G. B. Komar, clk. A. H. Beard, Chemical Bldg., St. Louis, engr.

Montana—State Highway Comn., Helena, rejected bids opened Jan. 28, grading, graveling and building one 20, one 40 and one 16 ft. concrete, steel or wooden bridges on 5 mi. road between Quebec and county line, Federal Aid Project 133, Sweet Grass Co. About $30,000. J. N. Eddy, state highway engr. Noted Jan. 20.

Tex., Comanche—Comanche Co. plans to build roads in Dists. 1 and 4. About $200,000 and $40,000 respectively. L. D. Parks, De Leon, co. engr.

Tex., Crowell—Foard Co. plans to grade, gravel surface and drain 22 mi. Highway 28A, from here to Wilbarger Co. line, 24 ft. shoulder to shoulder. About $71,000. L. Noland, Crowell, engr.

Tex., Floydada—Floyd Co. defeated $100,000 bond issue for road construction. Plan to call new election shortly. W. B. Clarke, co. judge.

Tex., Hillsboro—Hill Co. plans to complete 2¼ mi. King of Trails Highway and lateral roads in Midway School Dist., 16 ft. wide. Election soon to vote on $30,000 bonds for project. W. L. Wray, judge.

Tex., Junction—Kimble Co. having plans prepared grading, surfacing, draining and building bridges on 6.57 mi. State Highway 27, west from here to Roosevelt, involving 31.7 acres clearing and grubbing, 230 cu.yd. Class A and 97 cu.yd. Class B concrete, 70

Streets and Roads (Continued)

cu.yd. pavement concrete, 29,090 lb. reinforcing steel. Cost $41,786. W. E. Simpson Co., Hicks Bldg., San Antonio, engrs.

Tex., Kerrville—Kerr Co. had plans prepared building 31.8 mi. various roads, 16 ft. wide, gravel, Federal Aid Project 243. Cost $270,111. W. E. Simpson Co., Hicks Bldg., San Antonio, engrs.

Tex., Pearsall—Frio Co. plans to gravel surface and drain Meridian Highway 2, also lateral roads connecting up with same, 12-16 ft. wide. Bonds for $500,000 voted for project. State and Federal Government will be asked to appropriate toward cost.

Tex., San Antonio—Bexar Co. having plans prepared grading, surfacing and draining 3.44 mi. State Highway 3, from Converse to Cibolo Creek, involving 15 acres clearing and grubbing, 11,800 cu.yd. borrow excav., 20,000 cu.yd. embankment rolling, 32,355 sq.yd. 1 in. bituminous macadam, 511.15 cu.yd. 1:2:4 concrete, 10,110 cu.yd. gravel, 37,878 lb. reinforceing steel. Cost $82,660. C. E. Hoff, co. engr.

Tex., Wichita Falls—Wichita Co. plans to pave and drain various unimproved highways and lateral roads, 16-20 ft. wide, concrete and bituminous concrete. Bonds for $1,500,000 voted for project. J. M. Isbell, Wichita Falls, co. engr.

Okla., Norman—City soon receives bids draining and paving 2 districts, involving 125,000 sq.yd. concrete. No bids received on June 14. Peckham, Sutton & James, 225½ West Grand Ave., Oklahoma City, engrs. Noted June 2.

Ore., Portland—City plans to pave various streets, involving 13,000 ft. of asphalt, concrete or bituminous concrete. About $125,000. O. Laurgaard, City Hall, engr.

BIDS DESIRED

Maine—Until July 14, by State Highway Dept., Augusta, paving 3.1 mi. state highway in Turner and Livermore, 18 ft. wide, gravel, cost $76,000; 3.59 mi. in Bangor and Veazie, 18 ft. wide, concrete, $150,000. P. D. Sargent, ch. engr.

Massachusetts—Until July 12, by State Highway Dept., Boston, paving 9,200 ft. state highway in Barre and Oakham, 18 ft. wide, bituminous macadam, cost $65,000; 28,500 ft. in Wichendon and Templeton, 18 ft. wide, bituminous macadam, $200,000; 8,880 ft. in Brookfield and West Brookfield, 21 ft. wide, rein.-con., $90,000. A. W. Deane, Statehouse, ch. engr.

N. Y., Brooklyn—Until July 13, by E. Riegelmann, boro. pres., Boro. Hall, regulating and paving Lott Ave. from Bristol to Chester Sts., Lott Ave. from Sackman to Powell Sts., Malta, Osborne, Stone, Decatur, Conover, Sullivan, Fair and 82nd Sts., permanent asphalt; regulating, paving, etc., 78th St.; regulating and resurfacing Sheepshead Bay Rd., bituminous macadam; Metropolitan and Ocean Aves., grade 1 asphalt pavement; regulating, grading and curbing, etc., Dikeman, Malta and 78th Sts.

N. Y., Brooklyn—Until July 14, by Park Bd. at office of Dept. Parks, Municipal Bldg., New York City, improving Ocean Parkway between Coney Island Creek Bridge and Coney Island Concourse. F. D. Gallatin, pres.

N. Y., New York—Until July 11, by H. H. Curran, pres. Manhattan Boro., Municipal Bldg., regulating and repaving Hancock St., widening and repaving Lexington Ave., 36th and 37th Sts., all sheet asphalt. About $75,000.

N. Y., New York—Until July 14, by Park Bd. at office Dept. Parks, Municipal Bldg., repaving Eastern Blvd., from Bronx and Pelham Parkway to Westchester Ave., asphalt. F. D. Gallatin, pres.

N. J., Closter—Until July 14, by boro, paving various streets, asphalt block. F. K. Cade, boro engr.; advertised in this issue.

N. J., Salem—Until July 25, by Salem Co., reconstructing State Highway Route 6, Sect. 7, Woodstown-Salem Rd. E. G. Ochs, clk. H. B. Keasbey, co. engr; advertised in this issue.

Pa., New Florence — Until July 18, by Boro. Council, paving Ligonier St. Carstensen & McLain, Johnstown, engrs.; advertised in this issue.

Delaware—Until July 20, by State Highway Dept., Dover, building road from Laurel to Asbury Church, Contr. CS-13A; road through Georgetown, Contr. CS-14. C. M. Upham, ch. engr.; advertised in this issue.

Md., Easton—Until July 14, by Mayor and Town Council, at office of J. B. Brown, clk., resurfacing existing Topeka street pavements. E. G. Kastenhuber, Jr., town engr.; advertised in this issue.

W. Va., Elkins—Until July 22, by H. C. Kesling, clk. Randolph Co., reconstructing 2 mi. Seneca Pike, Beverly Dist. E. G. Elliott, co. road engr.

North Carolina—Until July 19, by State Highway Comn., at div. office Greensboro, grading and draining 5.22 mi. State Aid Project 546, Alamance Co., involving 3 acres clearing and grubbing, 30,200 cu.yd. common and 2,600 cu.yd. rock excav., 1,130 ft. 12-24 in. terra cotta or plain concrete pipe, 110 cu.yd. Class B and 445 cu.yd. Class A concrete, 70,810 lb. reinforcing steel, etc. About $40,000.

S. C., Camden—Until July 12, by Comrs. Kershaw Co., grading and sand clay surfacing 3.348 mi. Camden-Lancaster-Charlotte Rd. and 21,069 road from Camden to Chesterfield Co. line. J. D. Gregory, Camden, engr.

Alabama—Until July 26, by State Highway Dept., Montgomery, grading, draining, bridging and surfacing 25.2 mi. Byler Rd. from Northport to New Lexington, Tuscaloosa Co., involving 57 acres clearing and grubbing, 145,305 cu.yd. common and 14,724 cu.yd. solid rock excav., 2,600 lin.ft. 15-30 in. pipe, 2,300 cu.yd. Class A, 534 cu.yd. Class B, and 40 cu.yd. Class C concrete, 229,486 lb. reinforcing steel, 59,267 cu.yd. gravel surfacing, etc. W. S. Keller, state highway engr.

Alabama—Until Aug. 2, by state highway comr, Montgomery, grading, draining and surfacing 12.39 mi. Monroe-Uriah Rd., involving 25.78 acres clearing and grubbing, 39,369 cu.yd. common excav., 29,120 cu.yd. gravel surfacing, 63.28 cu.yd. Class B and 223.58 cu.yd. Class A concrete, 17,415 lb. reinforcing steel, etc. W. S. Keller, state highway engr.

Louisiana — Until July 11, by State Highway Dept., New Orleans, gravel surfacing 18,287 cu.yd. Palmetto Highway, Sects. B and C, Project 19, Allen Parish. D. Buie, ch. engr.

Tenn., Erwin—C. B. Coe & Co., engrs., Johnson City, receiving bids paving various streets, here, involving 20,000 sq.yd. sheet asphalt, asphaltic concrete or wood block, 21,000 ft. curbing and guttering, manholes, storm sewers, etc., for city.

Ohio—Until July 22, by State Highway Dept., Columbus, grading, draining and paving roads in following counties:

Allen Co., Sect. "A-1" Westminster-New Hampshire Rd., 2.051 mi. Kentucky rock asphalt or bituminous macadam, $38,335 and $31,891 respectively.

Ashland Co., Sect. "A" Mansfield-Ashland Rd., 1.85 mi., monolithic brick, $88,644, or brick, $99,249., (state to furnish monolithic brick).

Ashtabula Co., Sect. "C" Youngstown-Conneaut Rd., 4.997 mi., monolithic brick (state to furnish brick), $185,894, or bituminous macadam, $194,587.

Coshocton Co., Sect. "West Lafayette" Newcomerstown-Coshocton Rd., 0.915 mi., monolithic brick (state to furnish brick), $39,764 or plain concrete, $33,303.

Crawford Co., Sect. "K" Columbus-Sandusky Rd., 2.034 mi., brick (state to furnish brick), $106,226.

Sect. "M & N" Marion-Bucyrus Rd., 6.705 mi., brick (state to furnish brick), $332,447.

Delaware Co., Sect. "A-1" Delaware-Marysville Rd., 1.1756 mi., bituminous macadam, $35,619, or rein.-con., $48,066.

Erie Co., Sect. "Q" Sandusky-Norwalk Rd., 0.42 mi., concrete and brick, $21,702.

Fulton Co., Sect. "Delta" Toledo-Wauseon Rd., 0.451 mi., rein.-con., $28,505.

Green Co., Sect. "B" Springfield-Jamestown Rd., 6.9 mi., bituminous macadam, $214,904.

Hardin Co., Sect. "D" Marysville-Kenton Rd., 1.94 mi., bituminous macadam, $70,728.

Hardin Co., Sect. "Vic" Marysville-Kenton Rd., 0.645 mi. bituminous macadam, $27,525.

Harrison Co., Sect. "R" Cadiz-Dennison Rd., 3.765 mi., bituminous macadam, $156,355.

Holmes Co., Sect. "K" Mansfield-Millersburg Rd., 2.178 mi., monolithic brick (state to furnish brick), $66,370 or plain concrete, $58,094.

Jefferson Co., Sect. "H-3" Steubenville-Cambridge Rd., 1.044 mi., brick, $68,373.

Knox Co., Sect. "B-1" Mt. Vernon-Newark Rd., 3.39 mi., monolithic brick (state to furnish brick), $163,651.

Lorain Co., Sect. "K" Oberlin-Norwalk Rd., 0.265 mi., brick (state to furnish brick), $14,537.

Lucas Co., Sect. "C" Waterville-Swanton Rd., 3.513 mi., waterbound macadam, $94,649.

Monroe Co., Sect. "F" Woodsville-Sistersville Rd., 2.164 mi. bituminous macadam, $121,598.

Sect. "K-1" McSonnelsville-Caldwell Rd., 1.637 mi., bituminous macadam, $63,064.

Ottawa Co., Sect. "B-2" Port Clinton-Bowling Green Rd., 0.875 mi., plain concrete, $25,478.

Paulding Co., Sect. "J" Payne-Hicksville Rd., 3.817 mi., plain concrete, $166,349.

Sect. "M" Van Wert-Ottawa Rd., 2.865 mi., Kentucky rock asphalt, $110,009.

Sect. "Ottoville" Van Wert-Ottawa Rd., 0.595 mi., Kentucky rock asphalt, $22,986.

Ross Co., Sect. "L-1" Chillicothe-Jackson Rd., 0.462 mi., brick, $25,664.

Sandusky Co., Sect. "D-1" Fremont-Bowling Green Rd., 0.42 mi., brick (state to furnish brick), $22,577 or bituminous concrete, $21,612.

Seneca Co., Sect. "O" Findlay-Tiffin Rd., 1.044 mi., bituminous macadam, $35,910.

Sect. "I" Tiffin-Republic Rd., 1.009 mi., bituminous macadam, $39,039 or Kentucky rock asphalt, $43,773.

Stark Co., Sect. "F" Navarre-Berlin Rd., 0.93 mi., brick (state to furnish brick), $55,242.

Trumbull Co., Sect. "T" Warren-Sharon Rd., 1.51 mi., brick (state to furnish brick), $100,775.

Tuscarawas Co., Sect. "M" Newcomerstown-Uhrichsville Rd., 3.342 mi., monolithic brick (state to furnsh brick), $156,856; bituminous macadam, $113,884 or plain concrete, $144,034.

Sect. "P and W" Newcomerstown-Uhrichsville Rd., 0.589 mi., monolithic brick (state to furnish brick), $25,340, bituminous macadam, $17,288 or plain concrete, $23,120.

Warren Co., Sect. "C-1" Columbus-Cincinnati Rd., 4.42 mi., bituminous macadam, $150,454 or rein.-concrete, $150,416.

Wayne Co. Section "C" Millersburg-Wooster Rd., 1.42 mi., monolithic brick (state to furnish brick), $70,301 or concrete, $70,710.

Williams Co., Sect. "N-2" West Unity-Montpelier Rd., 0.891 mi., bituminous macadam, $31,891.

Sect. "West Unity" West Unity-Montpelier Rd., 0.61 mi., bituminous macadam, $2,022.

Holmes Co., Sect. "L-1" Mansfield-Millersburg Rd., 2.382 mi., grading only, $28,674.

Sect. "B" Mansfield-Ashland Rd., 3,523 grading, $78,418.

Henry Co., Sect. "B-1" Toledo-Napoleon Rd., 5.287 mi., grading, $47,488.

Hocking Co., Sect. "A-2" Logan-McArthur Rd., 2.623 mi., grading, $43,848.

Sect. "H" Medina-Norwalk Rd., 1.15 mi., grading, $26,203. E. S. Smith, state highway engr.

Ohio—Until July 22, by State Highway Dept., Columbus, resurfacing roads in following counties:

Fulton Co., Sect. "F" Toledo-Wauseon Rd., 2.5 mi., with waterbound macadam, $51,717.

Hamilton Co., Sect. "B" Harrison Pike, bitoslag, $19,016.

Henry Co., Sect. "B" Bryan-Napoleon Rd., 1.44 mi., waterbound macadam, $23,123.

Jefferson Co., Sect. "D and E" Canton-Steubenville Rd., 4.02 mi., bituminous macadam, $57,600.

Ottawa Co., Sect. "H" Toledo-Elmore Rd., 0.99 mi., rein.-con., $24,687.

Pike Co., Sect. "B" Columbus-Portsmouth Rd., 0.812 mi., rein.-con., $33,266.

Richland Co., Sect. "G and K" Mansfield-Galion Rd., 2.99 mi., waterbound macadam, $52,824.

Stark Co., Sect. "A" Canton-Canal Dover Rd., 1.48 mi., brick (state to furnish brick), $61,420.

Wood Co., Sect. "A" Bowling Green-Port Clinton Rd., bituminous macadam, $33,300.

Wyandot Co., Sect. "G-1" and "G-2" Findlay-Upper Sandusky Rd., bituminous macadam, $55,291.

Butler Co., Sect. "D" Hamilton-Middletown Rd., 4.15 mi., surfacing with sheet asphalt, $128,996.

Sect. "A" Carthage-Hamilton Rd., building diversion wall, $3,850.

Montgomery Co., Sec. "F-1" Dayton-Troy Rd., building bridge, $8,212.

Muskingum Co., Sect. "R" National Rd., building bridge, $14,148.

Hocking Co., Sect. "A" Logan Athens Rd., building bridge, $11,091.

Columbiana Co., Sect. "B" Ohio River Rd., building bridge, $8,990.

Sect. "J" Toledo-Angola Rd., building bridge, $25,378. E. S. Smith, state highway engr.

O., Columbus—Until July 19, by city, grading, draining, curbing and paving 5,536 ft. High St. from Cedar Alley to 5th Ave., asphalt. About $145,445. R. H. Simpson, City Hall, engr.

O., Columbus—Until July 19, by city, grading, draining, curbing, laying water-

Streets and Roads (Continued)

mains and paving 4,270 ft. Front St. from Town St. to Erie alley, asphalt $169,096, stone block, $191,386. R. H. Simpson, City Hall, engr.

Mich., Algonac—Until July 14, by Village Clerk, grading, draining, and surfacing Front St., involving 12,019.3 sq.yd. concrete or bituminous concrete, 8,818.5 lin.ft. concrete curb and gutter, 3,545 cu.yd. earth excav., etc.

Ill., Chicago—Until July 12, by Bd. Local Impvts., 207 City Hall, paving Beacon St. from Sunnyside to Lawrence Aves., involving 6,150 sq.yd. asphalt on 6 in. concrete, 3,800 ft. concrete, 2,450 cu.yd. excav., cost $37,500; Dobson Ave. from 79th to 82nd Sts., 6,600 sq.yd. 10 in. blast furnace slag on 2½ in. limestone, 3,830 ft. concrete, etc., $32,500; East 83rd. St. from Maryland to Ellis Aves., 4,090 sq.yd. 10 in. blast furnace slag on 2½ in. granite, 2,280 ft. concrete, $21,500; Franklin St. from Lake St. to Jackson Blvd., 10,500 cu.yd. creosoted wood blocks on 8 in. concrete, etc., $57,000; Greenview Ave. from Thorndale to Ridge Aves., 1,800 sq.yd. asphalt on 6 in. concrete, 1,160 ft. concrete, $13,000; Higgins Ave. from Milwaukee to Edmunds Aves., 5,340 sq.yd. asphalt on 6 in. concrete, 1,220 ft. concrete, $45,500; Keating Ave. from Wellington Ave. to George St., 1,520 sq.yd. asphalt on 6 in. concrete, 1,250 ft. concrete, $9,900; Lamon Ave. from Barry St. to Belmont Ave., 1,500 sq.yd. asphalt on 6 in. concrete, $11,500; Leland Ave. from Kimball to Central Park Aves., 4200 sq.yd. asphalt 2700 ft. concrete, $30,000; Richmond St. from Armitage to Palmer Sts., 4,300 sq.-yd. asphalt on 6 in. concrete, 2,850 ft. concrete, $36,000; Troy St. from Foster to Winona Aves., 1,200 sq.yd. asphalt on 6 in. concrete, $9,000; Winona St. from Leavitt St. to Oakley Blvd., 1,188 sq.yd. asphalt on 6 in. concrete, $8,500; Kilpatrick Ave. from Wellington to George Sts., 1,250 ft. concrete, 1,920 sq.yd. asphalt on 6 in. concrete, $11,000; West 63rd. St. from Central to Austin Aves., 13,000 sq.yd. vitr. brick on 6 in. concrete, 5,300 ft. concrete, $124,000; curbing May, Aberdeen, Carpenter, Morgan and West 54th Sts., 12,500 ft. concrete on 3 in. cinders, gravel or sand, $17,500; La Vergne Ave. from Madison to Harrison Sts., 8,600 sq.yd. asphalt on 6 in. concrete, 5,300 ft. concrete, $58,500; Lawler Ave. from North to Hirsch Aves., 3,570 sy.yd. asphalt on 6 in. concrete, 2,600 ft. concrete $23,500; Lockwood Ave. from Madison to Harrison Sts., 8,100 sq.yd. asphalt on 6 in. concrete, 5,040 ft. concrete, $55,000; Morgan St. from 74th St. to point 477 ft. south, 1,620 sq.yd. asphalt on 6 in. concrete, 1,000 ft. concrete, $10,900; Peoria St. from 60th to 63d Sts., 6,400 sq.yd. asphalt on 6 in. concrete, 3,960 ft. concrete, $39,000; San Joe St. from Leavitt to Oakley Blvd., 1,900 sq.yd. asphalt on 6 in. concrete, 1,300 ft. concrete, $12,300; East 76th St. from Constance to Ridgeland Aves., 1,600 sq.yd. asphalt on 6 in. concrete, 1,180 ft. concrete, $10,500, Creiger Ave. from East 77th to 78th Sts., 1,940 sq.yd. asphalt on 6 in. concrete, 1,380 ft. concrete, $12,800; East End Ave. from East 79th St. to South Chicago Ave., 1,710 sq.yd. asphalt on 6 in. concrete, 1,280 ft. concrete, $10,500; West 1[illegible]th St. from Keeler to Kostner Aves., 4,320 sq.yd asphalt on 6 in. concrete, 2,630 ft. concrete, $26,000; West 49th Place from Laflin to Throop Sts., 3,000 sq.yd. asphalt on 6 in. concrete, 2,750 ft. concrete, $24,500; West 52nd. St. from State to Federal Sts., 4,010 sq.yd asphalt on 6 in. concrete, 2,550 ft. concrete, $24,000; Gladys Ave. from Laramie to Central Aves., 7,240 sq.yd. asphalt on 6 in. concrete, 5,000 ft. concrete, $50,500; Hoyne Ave. from Garfield Blvd. to 59th St., 8,200 sq.yd. asphalt on 6 in. concrete, 5,000 ft. concrete, $8,000; West 76th St. from Morgan to Racine Aves., 4,800 sq.yd. asphalt on 6 in. concrete, 2,800 ft. concrete, $35,500; West 13th St. from Kedzie to Homan Aves., 4,000 sq.yd. asphalt on 6 in. concrete, 2,500 ft. concrete, $26,000; Turner St. from Archer Ave. to point 500 ft. west, 1,760 sq.yd. asphalt, 1,000 ft. concrete, $10,000; Norwood Park Ave. from Milwaukee to Austin Aves., 14,500 sq.yd. vitr. brick on 6 in. concrete, 8,100 ft. concrete, $142,500. C. D. Hill, ch. engr.

Illinois—Until July 12, by Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 381 mi. Route 1, Sect. 1, Clarke Co.; 2.99 mi. Route 2, Sect. 1, Jackson Co; 5.99 mi. Route 2, Sect. 7, Perry-Washington Counties; 5.14 mi. Route 2, Sect. 8, Washington Co.; 3.43 mi. Route 2, Sect. 18, Alexander Co.; 11.13 mi. Route 2, Combination A, Perry-Washington Counties; 6.25 mi. Route 4, Sect. 10, Livingston Co.; 5.68 mi. Route 4, Sect. 12, Livingston Co.; 7.95 mi. Route 4, Sect. 13, McLean-Livingston Co.; 13.63 mi. Route 4, Combination B, McLean-Livingston Co.; 19.88 mi. Route 4, Combination C, McLean-Livingston Co.; 7.28 m. Route 5, Sect. 11, McHenry Co.; 6.12 mi. Route 5, Sect. 12, McHenry Co.; 13.4 mi. Route 5, Combination D, McHenry Co.; 3.98 mi. Route 5, Sect. 13, Boone Co.; 4.43 mi. Route 5, Sect. 14, Boone Co.; 3.09 mi. Route 5, Sect. 15, Boone Co.; 11.5 mi. Route 5, Combintion E, Boone Co.; 24.9 mi. Route 7, Combination F, McHenry-Boone Co. 2.98 mi. Route 7, Sect. 1, Rock Island Co.; 2.54 mi. Route 7, Sect. 2, Henry Co.; 5.52 mi. Route 7, Combination C, Rock Island-Henry Co.; 8.44 mi. Route 7, Sect. 4, Henry Co.; 2.38 mi. Route 10, Secy. 1Y, Champaign Co.; 4.93 mi. Route 10, Sect. 2, Champaign Co.; 5.04 mi. Route 10, Sect. 3, Champaign Co.; 12.35 mi. Route 10, Combination H, Champaign Co.; 3.58 mi. Route 10, Sect. 13, Macon Co.; 3.63 mi. Route 10, Sect. 14, Macon Co.; 7.21 mi. Route 10, Combination I, Macon Co.; 7.12 mi. Route 10, Sect. 24, Sangamon Co.; 6.42 mi. Route 10, Sect. 25, Morgan Co.; 12.54 mi. Route 10, Combination J, Sang-Morgan Co.; 3.41 mi. Route 25, Sect. 1, Effingham Co.; 5.24 mi. Route 28, Sect. 1, Knox Co. 4.73 mi. Route 28, Sect. 2, Knox Co.; 9.97 mi. Route 28, Combination K, Knox Co.; 4.36 mi. Route 31, Sect. 7, Brown Co. C. Older, ch. highway engr.

Wisconsin—Until July 13, by State Highway Comn., at div. office 13, Nicolet Bldg., Green Bay, grading and draining 4.43 mi. Peshtigo-Marinette Rd., Federal Aid Project 259, Marinette Co., involving 10.4 acres clearing and grubbing, 29,955 cu.yd. earth excav., 131.8 cu.yd. Class A concrete, etc.

Wisconsin—Until July 14, by State Highway Comn., Office 1, 149 East Wilson St., Madison, grading, surfacing and building bridges on 2.98 mi. Reedburg-La Valle Rd., Federal Aid Project 175, Sauk Co., involving 5,056 cu.yd. feather edge gravel, 20,842 cu.yd. earth excav., 637 cu.yd. Class A concrete, etc.; 8 mi. Middleton-Cross Plains Rd., Dane Co., Federal Aid Project 200, 2.5 acres clearing and grubbing, 45,139 cu.yd. earth excav., 518 cu.yd. Class A concrete, etc.

Wisconsin—Until July 15, by State Highway Dept., at div. office 8, First Natl. Bank Bldg., Superior, grading and surfacing 2.4 mi. Superior-Danbury Rd., Federal Aid Project 201, Douglas Co., involving 5.25 acres clearing and grubbing, 18,293 cu.yd. earth excav., 159 cu.yd. Class A concrete, 4,153 cu.yd. feather edge gravel, etc.; 5.17 mi. Bruce-Radisson Rd., Federal Aid Project 244, Sawyer Co., 16.61 acres clearing and grubbing, 19,190 cu.yd. earth excav., 168.4 cu.yd. Class A concrete, 8,852 cu.yd. feather edge gravel, etc.

Wis., Oshkosh—Until July 12, by J. Benning, Winnebago Co. highway comr., surfacing 1.59 mi. Oshkosh-Winneconne Rd., involving 3,091 cu.yd. earth excav., 15,015 sq.yd. 16 ft. concrete surfacing and 25.65 cu.yd. Class A concrete; 3,937 lin.ft. Waverly-Bench-Menosha Rd., 2,163 cu.yd. earth excav. and 6,445 sq.yd. 16 ft. concrete surfacing; building Noebel Bridge, 101.4 cu.yd. concrete.

Ia., Dakotah—Humboldt Co. receiving bids grading and surfacing 21 mi. Project 117, involving 15 mi. grading, 7 mi. gravel surfacing and 200,000 ft. 6 in. tile drain pipe. About $215,000. K. J. Smith, Humboldt, engr.

Ia., Anamosa—Until July 12, by auditor Jones Co., grading primary road from Linn Co. line northeast through here to Dubuque Co. line, Federal Aid Project 86, involving 265,756 cu.yd. earth and 9,912 cu.yd. rock excav. Noted June 23.

Minnesota—Until July 20, by State Highway Dept., 920 Guardian Life Bldg., St. Paul, improving 4 mi. State Project 7-27, Federal Aid Project 96, Winona Co., involving 10,800 sq.yd. paving and 5,760 cu.yd. gravel surfacing, cost $40,000; 10 mi. State Project 9-22, Federal Aid Project 228, Martin Co., 109,300 cu.yd. excav., $45,000; 23 mi. State Project 9-23, Federal Aid Project 224, Jackson and Nobles Counties, 220,000 cu.yd. excav., $80,000; 25 mi. road between Blue Earth and Banks, State Project 9-24, Faribault Co., $40,000 cu.yd. gravel surfacing, $100,000; State Project 10-34, Federal Aid Project 30 between Howard Lake and Delano, 28,130 lin.ft. 6-8 in. tile and 25,600 cu.yd. gravel surfacing, $50,000 and State Project 10-35 between Howard Lake and Dassel, both Wright Co., 42,241 lin.ft. 6-8 in. tile, $25,000; 8 mi. State Project 54-22, Federal Aid Project 225, Grant Co., 55,700 cu.yd. excav., $25,000. C. M. Babcock, comr. Noted June 30.

Minnesota—Until July 21, by State Highway Dept., 920 Guardian Life Bldg., St. Paul, improving 6 mi. State Project 8-22, Federal Aid Project 57, involving 99,000 cu.yd. excav., cost $26,000; 9.3 mi. road through Tamarack, State Project 2-21, Federal Aid Project 149, Aitkin Co., 14,840 cu.yd. gravel surfacing, $25,000; 7 mi. road between Montgomery and New Prague, State Project 13-22, Federal Aid Project 89, Le Sueur Co., 11,900 cu.yd. gravel surfacing, $25,000; 26 mi. road between Westcott and Northfield, State Project 1-21, Federal Aid Project 212, Dakota and Rice Counties, 390,000 cu.yd. excav., $200,000; 8 mi. road between Preston and Harmony, State Project 20-23, Federal Aid Project 39, Fillmore Co., 13,290 cu.yd. gravel surfacing, $32,000; 18 mi. State Project 53-21, Federal Aid Project 22, Dakota Co., 29,000 cu.yd. gravel surfacing, $50,000; 7 mi. road from Blooming Prairie eastward, State Project 41-22, Federal Aid Project 230, Steele and Dodge Counties, 12,000 cu.yd. gravel surfacing, $30,000. C. M. Babcock, comr.

Minn., Jackson—Until July 20, by Jackson Co. at office of State Highway Dept., 920 Guardian Life Bldg., St. Paul, grading and building culverts on 6 mi. Federal Aid Project 134, State Rd. 2, involving 51,507 cu.yd. excav. and 405 lin.ft. portable culverts. About $30,000. Former bids rejected. W. M. Richmond, Jackson, engr. Noted June 9.

Minn., Pipestone—Until July 20, by Pipestone Co. improving Job 2009, State Rd. 2, involving 45,114 cu.yd. excav., 123,590 cu.yd. overhaul, etc. About $25,000. E. Keeler, Pipestone, engr.

Kan., Syracuse—Until Aug. 9, by Comrs. Hamilton Co., grading and building culverts on 5.67 mi. Old Santa Fe Trail, 24 ft. wide, Federal Aid Project 77. About $36,000. R. B. Glass, Lakin, engr.

Kan., Wichita—Until Aug. 4, by Bd. Comrs. Sedgwick Co., paving, grading and draining 5.599 mi. Cannon Ball Trail, 18 ft. wide, brick or concrete, Federal Aid Project 54, Sect. A. About $300,000. Former bids rejected. M. Roseberry, Wichita, engr.

S. D., Sturgis—Until July 11, by city, paving various streets, involving 8,000 sq. yd. concrete. About $28,000. H. H. McCrary, aud. T. H. Johnson, Iowa Bldg., Sioux City, engr.

Montana—Until July 19, by State Highway Dept., Helena, building, Yellowstone Trail, Federal Aid Project 82, Gallatin Co., involving (a) 49,000 cu.yd. excav., 67,644 sq.yd. paving, 1 course Portland cement concrete, bituminous concrete, bituminous macadam and type A gravel, (b) 146,000 lb. structural steel in truss, 62,000 lb. structural steel in joints, 95 cu.yd. Class B concrete in piers, 570 cu.yd. Class A and B concrete in bridges, 34,500 lb. reinforcing steel. About $250,000. J. N. Edy, state highway engr.

Missouri—Until July 15, by State Highway Dept., Centerville, building 13.74 mi. state road from Ellington southward, State Aid Project S 20.44, Reynolds Co. About $42,967. A. Graham, state highway engr. Noted June 16.

Mo., Charleston—Mississippi Co. receiving bids improving 28.5 mi. road from here to East Prairie and Amiston, monolithic concrete. About $135,000. C. E. Swank, Charleston, engr. Noted April 7.

Mo., Jefferson City—Until July 12, by City Clerk, resurfacing Harrison St., bituminous macadam or Kentucky rock asphalt. About $25,000. L. F. Brown, Jefferson City, engr.

Mo., Kirksville—Until July 12, by Adair Co., grading and draining various roads, involving 36,544 cu.yd. earth excav. and 800 cu.yd. Class B concrete. About $31,000. M. J. Mattick, clk. Private plans.

Mo., Marysville—Until July 13, by Nodaway Co. care of A. C. Lingley, clk., grading and draining Project 20.33. About $25,000. Private plans.

Mo., Nevada—Until July 18, by Vernon Co. surfacing Atlantic-Pacific Rd., gravel on concrete base, also building one 40 ft. and one 30 ft. steel bridges. About $25,000. J. W. Clark, Nevada, engr. Noted June 23 under "Missouri."

Tex., Austin—Until July 18, by G. S. Mathews, judge Travis Co. grading, surfacing, draining and building bridges on 9.15 mi. State Highway 20, Kimbro Dist., involving 53,188 cu.yd. borrow, 15,295 cu.yd. roadway excav., 1,019.45 cu.yd. 1:2:4 concrete, 85,436 lb. reinforcing steel, 24,082 cu.yd. crushed rock, etc. About $180,000. J. O. Corwin, 511 Scarborough Bldg., engr.

Tex., Rusk—Until July 13, by C. F. Gibson, judge Cherokee Co., grading, bridging, surfacing and draining 25 mi. Rd. Dist. 4, 24 ft. shoulder to shoulder. C. E. Cocke, co. engr.

Tex., San Augustine—Until July 20, by W. K. Knight, judge San Augustine Co., grading, surfacing and building bridges on 20.95 mi. Kings Highway 21, involving 82,726 cu.yd. borrow, 134,158 cu.yd. roadway and 14,476 cu.yd. rock excav., 1,973.7 cu.yd.

Streets and Roads (Continued)

1:2:4 and 87.5 cu.yd. 1:2½:5 concrete, 260,860 lb. structural and 154,101 lb. reinforcing steel, 3,860 lin.ft. treated piling, etc. about $282,650 including 10 per cent for engineering and contingencies.

Wash., Tacoma—Until July 15, by Pierce Co. grading and paving 2.26 mi. Eatonville Highway from Eatonville to Natl. Park Highway, concrete. E. A. White, Tacoma, engr.

California—Until July 18, by State Highway Comn., 515 Forum Bldg., Sacramento, paving 10.4 mi. highway between Upton and south boundary, cement concrete or bituminous macadam; 16.1 mi. between Cloverdale and Healdsburg, cement concrete or asphaltic concrete. A. B. Fletcher, highway engr.

Cal., South Pasadena (Pasadena P. O.)—Until July 11, by City Clerk, paving Orange Grove and Garfield Aves., involving 295,000 sq.ft. 3 in. oil macadam and 15,500 ft. cement curbing.

Nova Scotia—Until July 18, by W. A. Hendry, ch. engr. Provincial Highways, Halifax, building 5 mi. Guysboro-Tracadie Rd. and 5 mi. Guysboro-Causo Rd., gravel macadam, Guysboro Co., 5.21 mi. Woods Harbor-Shag Harbor Rd., gravel macadam, Shelburne Co. About $48,600.

N. S., Halifax—Until July 18, by A. F. Stewart, ch. engr., Canadian Natl. Rys., Moncton, N. B., paving 8,800 sq.yd. at Halifax Terminals. About $27,600.

Ontario—Until July 13, by W. A. McLean, deputy minister of highways, Parliament Bldgs., Toronto, building 4 mi. macadam base, 24 ft. wide, 8 in. deep, in Grantham and Niagara Twps., Contr. 439, cost $40,000; Grimsby Twp., Contr. 440, $40,000; earth fill at River aux Raisin Bridge, Contr. 441, $18,000. G. Hogarth, Parliament Bldg., Toronto, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

New Hampshire—State Highway Dept., Concord, received bids June 27, paving (1) 2.2 mi. state highway in Newington, asphalt penetration, (2) 1 mi. in Sunapee, bituminous macadam; (3) 1.01 mi. in Hooksett, 18 ft. wide, (a) concrete (b) asphalt penetration, from J. E. Watkins, 1 Fern Ave., Amesbury, Mass., (1) $34,224; C. H. Badger Constr. Co., 2 Pratt St., Portsmouth, (1) $40,804; W. H. Connor & Son, South Main St., Middleboro, Mass., (1) $43,180; R. E. Bull, Fitchburg, Mass., (2) $31,680; Collins Constr. Co., Andover, Mass., (2) $32,526 (3b) $30,594; Winslow & Cummings, Nashua, N. H., (2) $32,564 (3a) $31,709 (3b) $20,721; New Hampshire Cement Constr. Co., South St., Manchester, (3a) $30,337; Robie Consolidated Constr. Co., Manchester, (3b) $16,332; F. T. Ley Co., 495 Main St., Springfield, Mass., (3a) $30,363. Noted June 23.

Mass., Gloucester—Comrs. Essex Co. (Salem) received bids building Gloucester-Rockport Highway, here, involving (a) 11,000 cu.yd. earth excav. (above gr. 10), (b) 1,000 cu.yd. earth excav. (below gr. 10), (c) 10,000 cu.yd. borrow, (d) 370 cu.yd. 1:7½ concrete, (e) 200 cu.yd. 1:6 concrete, etc., from C. & R. Constr. Co., 195 Brookline Ave., Boston, (a) $1, (b) $1.50, (c)$1.60, (d) $15, (e) $18, etc., total $62,144; Hamlin & Nelson, 43 Bridge St., Salem, (a) $1.25, (b) $2, (c) $1.25, (d) $16, (e) $22.50, etc., total $70,621; M. McDonough Co., Swampscott, (a) $1, (b) $5, (c) $1.75, (d) $20, (e) $25, etc., total $73,626.

★Rhode Island—City let contract building 1⅞ mi. West Rd. from Plainfield Pike to Rockland-Richmond Rd., involving 420 cu.yd. concrete, 9,000 cu.yd. earth and 4,000 cu.yd. rock excav., 17,000 cu.yd. borrow, etc., to L. Longhi & Bro. Inc., 43 Center St., Torrington, Conn., $57,464. Noted June 9.

★N. Y., Brooklyn—E. Riegelmann, boro. pres., Boro Hall, let contracts to Cranford Co., 52 9th St., regulating and paving 12th Ave., cost $14,970, 19th Ave., $4,394, 82nd St., $10,893, 19th St., $13,715, 81st St., $9,875, West 33rd St., $11,664, 15th Ave., $7,481, 19th Ave. from 84th to 85th Sts., $4,372, 83rd St., $9,531 and Homecrest Ave., $12,565; to C. Gallagher, 745 Dean St., West 13th St., $4,178; to Simonelli & Son, Inc., 28 Conselyea St., regulating and repaving 15th Ave. from Dahill Rd. to 37th St., $1,925. Noted June 23.

★N. Y., Brooklyn—E. Riegelmann, boro pres., let contracts to Sicilian Asphalt Paving Co., 41 Park Row, New York City, regulating and paving Ave. O, cost $13,087, Rogers Ave., $16,000, Riverdale Ave., $20,167, State St., $11,784, 10th Ave., $5,686 and 75th St., $17,643; to Borough Asphalt Co., 1301 Metropolitan Ave., New Utrecht Ave., $117,707. Noted June 16.

N. Y., Brooklyn—Transit Constr. Comn., 49 Lafayette St., New York City, received bids June 28, restoring street and park surface along Eastern Parkway, here, from M. J. O'Hara, 557 3d St., $178,000; G. Morris Contg. Co., $188,530; F. J. Gallagher, 490 Park Pl. $192,000.

N. Y., New York—H. Bruckner, pres. Bronx Boro, received bids June 28, regulating and grading, etc. (1) Seymour Ave. from Pelham Parkway north to Astor Ave.; repaving (2) Eagle Ave. from East 109th to East 116th St., granite blocks, (3) Eagle Ave. from East 161st to East 163d Sts., sheet asphalt, (4) Brook Ave. from East 164th to East 165th Sts., granite block, (5) East 160th St. from Forest to Tinton Aves., sheet asphalt; paving (6) East 180th St. from Morris Park to East Tremont Aves., asphalt block, (7) Findlay Ave. from East 164th to East 165th St., bituminous concrete; building sewers and appurtenances in (8) north side of East Tremont Ave. between existing sewer in East Tremont Ave. to point about 50 ft. west of Silver St., etc., from

C. E. Farrell Contg. Co., (1) $2,971.

J. Meehan & Sons, 74 Cortlandt St., (2) $74,423.

Leonard Paving Co., 233 Bway., (2) $74,948.

Burnside Contg. Co., 270 Burnside Ave., (2) $74,862.

C. D. Beckwith, 301 West 108th St., (3) $8,785, (5) $4,162, (7) $5,244.

Brusstar Constr. Co., Inc., Harlem River and 150th St., (3) $10,333, (5) $4,994, (7) $6,045.

Asphalt Constr. Co., 2197 Madison Ave., (3) $10,244, (5) $5,260, (7) $6,046.

R. Towers Co., (4) $9,535, (6) $21,160.

Hastings Pavement Co., 25 Broad St., (6) $22,270.

M. I. Sachs, (4) $10,135.

P. J. Kearns Contg. Co., 2306 Creston Ave., (4) $9,408.

Gross Contg. Co., Inc., (8) $10,300.

C. DeBlasio, (8) $12,099.

Estates Contg. Co., (8) $11,672. Noted June 23.

★N. J., Belvidere—Bd. Freeholders Warren Co. let contract paving 5 mi. Sect. 3, Morris Turnpike from Phillipsburg to New Village, to Freeland Constr. Co., Allentown, Pa., $241,463. Noted May 26.

★N. J., Freehold—Bd. Freeholders Monmouth Co. let contract reconstructing Sect. 1 Farmingdale-Adelphia Rd., concrete, to Jannorone Constr. Co., Belleville, $46,292. Noted June 9.

★N. J., Salem—Bd. Freeholders Salem Co. let contract paving 4,200 ft. road from Pennsville toward Salem and 7,200 ft. road from Churchtown to Pennsville, both concrete, to E. A. Corson, Ocean City, $32,000 and $54,000, respectively. Noted June 9.

N. J., Salem—Bd. Freeholders Salem Co. received bids June 28, excavating and graveling 7 mi. road from Shirley to Oldmans Creek, involving 28,171 cu.yd. earth excav. and 80,031 sq.yd. gravel, from Tri-State Eng. Co., Bridgeton, 68.9% (of engineer's estimate of $113,000); Craig Mulford, Cedarville, 70.3%; L. J. Seeling, Red Bank, 73.7%. Noted June 16.

N. J., Woodbury—Bd. Freeholders Gloucester Co. received bids June 30, paving 8,678 sq.yd. Crown Point Rd., Amesite, from P. Connelly, 30th and Market Sts., Phila., 93% of engineers estimate ($30,500); E. R Morehouse, 1361 Park Blvd., Camden, 102%. Noted June 16.

★Pa., Phila.—City let contracts for (a) grading, (b) paving, (1) Passyunk Ave., (2) Delaware Ave. from Vine to Chestnut St., (3) Main St., (4) Federal St., (5) Ridge Ave., (6) 21st St., (7) Salmon St., (8) 55th St., (9) 5th St., (10) Walter St., (11) Mentor St., (12) Delaware Ave. from Chestnut to Queens Sts., (13) Grays Ferry Ave., (14) Ella St., (15) Hartwell Lane, (16) D St., (17) Bleight St., to United Paving Co., Land Title Bldg., (1b) $25,850; Union Paving Co., 30th and Locust Sts., (2b) $141,027; T. E. James, Phila., (3b) $97,862; Eastern Paving Co., Colonial Trust Bldg., (4b) $62,041, (5b) $95,833, (6b) $78,827, (7a) $6,120, (8a) $8,854; T. L. Flanigan, 1204 East Montgomery St., (9b) $66,022, (10a) $870, (11a) $278; J. Meehan & Sons, Otis Bldg., (12b) $229,992, (13b) $11,661, (14a) $585; M. Leewright, Phila., (15a) $511; J. Devlin, Jr., Hancock and Thompson Sts., (16a) $347; T. Connor, 3329 North 5th St., (17a) $1,597.

Pa., Phila.—City received bids June 29, paving (1) 6th St. from Oxford to York Sts., (2) Ridge Ave. from Columbia to Susquehanna Aves., (3) Ridge Ave. from Indiana Ave. to School House Lane, (4) 5th and 6th Sts. from Wharton St. to Snyder Ave., (5) 6th St. from York to Allegheny Sts., (6) 5th and 6th Sts. from Allegheny to Erie Aves., (7) Main St., (8) 5th St. from York to Allegheny Aves., (9) Grays Ferry Ave., (10) 22nd St., (11) Harrocks Sts., (12) Fairhill St., (13) Woodland Ave. from 34th to 39th Sts., (14) Germantown Ave., (15) Delaware Ave., (16) Woodland Ave. from 41st to 50th Sts., (17) 5th St. from Oxford to York Sts., from Ryan Constr. Co., 33rd St. and Grays Ferry Rd., (1) $47,847, (2) $79,538, (3) $114,636, (4) $83,233, (5) $53,818, (6) $90,338, (7) $75,397, (8) $71,053, (9) $49,793; Eastern Paving Co., Colonial Trust Bldg., (1) $50,925, (2) $74,281, (3) $103,098, (6) $84,893, (10) $55,973, (11) $9,042, (12) $14,494; Union Paving Co., 30th and Locust Sts., (1 $47,908, (2) $77,866, (3) $104,023, (4) $90,149, (5) $58,415, (7) $73,923, (8) $73,943, (10) $55,792, (13) $57,536, (15) 130,072, (16) $72,796, (17) $161,848; J. Lombardi, 1627 South Broad St. ,(4) $88,878, (14) $81,215; G. Donahough, Phila., (5) $56,530, (6) $88,549; R. E. J. Smith Co, Phila., (7) $103,093; J. Demsey & Son, Phila., (8) $73,233; Cunningham & Meredith, Phila., (9) $48,544; W. H. Echman, Jr., Phila., (9) $46 870; Barber Asphalt Co., Land Title Bldg., (10) $54,063, (11) $9,140, (12) $14,819; A. J. Anderson, Phila., (11) $8,915, (12) $15,643; B. Foster Co., 20th and Venango Sts., (13) $63,301; United Paving Co., Land Title Bldg., (13) $61,466; M. J. McCrudden, Real Estate Trust Bldg., (14) $84,966; Fish-Rutherford Co., Inc., Real Estate Trust Bldg., (14) $84,315, (15) $157,491; F. T. Buckins, Jr., Kensington and Deal Sts., (15) $140,421; Cunningham & Murray, Phila., (16) $72,614; W. H. Damon, Jr., Phila., (16) $77,777, (17) $80,247; Dobbins & Flood, Phila., (17) $83,460.

★North Carolina—State Highway Comn., at div. office, Greensboro, let contract grading, draining, bridging and surfacing 10.57 mi. State Aid Project 510, Guilford and Forsyth Counties, to Royer-Ferguson Co., Silver Springs, Md., $389,088. Noted June 23.

★North Carolina—State Highway Comn., at Div. office Kinston, let contract grading, draining and surfacing 16 mi. State Aid Project 511, Duplin Co., to C. W. Lacy, Wilmington, $90,005. Noted June 23.

★North Carolina—State Highway Comn., at div. office, Durham, let contract grading, draining and surfacing 21.9 mi. Lafayette Highway, State Aid Project 560, Harnett Co., to C. B. Kershaw Contg. Co., Woodward Bldg., Birmingham, Ala., $75,633. Noted June 23.

★N. C., Gastonia—City let contract paving various streets, involving 30,000 sq.yd. sheet asphalt, to North Constr. Co., Gastonia. About $100,000.

★N. C., Greensboro—Comrs. Guilford Co. let contract grading, draining and sand clay surfacing 12 mi. road from Alamance Church to Kimesville, to S. L. Davis Constr. Co., Millboro, $32,268.

★Alabama—State Highway Dept., Montgomery, let contracts to Stanley & Singer Constr. Co., La Fayette, grading, draining and surfacing 17.6 mi. road from Talladega to Calhoun Co. line, Sect. A, Talladega Co., chert or gravel, $143,715, 5.12 mi. road from Talladega to Calhoun Co. line, Sect. B, chert or gravel, $35,940, 2.296 mi. Jackson Highway, Washington Co., gravel, $47,661, 13.995 mi. road from Calvert to Axis, Mobile Co., gravel, $112,316; to Comrs. Pike Co., Troy, grading, draining and surfacing 10.226 mi. road from Banks to Brundidge, Pike Co., $40,452. Noted June 30.

★Louisiana—State Highway Dept., Maison Blanche Annex Bldg., New Orleans, let contract building 11.55 mi. Oak Grove Delhi Highway, Sect. C, West Carrol Parish, to McKeithen Constr. Co., Grason, $71,394. Noted June 9.

★Louisiana—State Highway Dept., New Orleans, let contract building 11.53 mi. Sect. B Oberlin-Lake Charles and Oberlin-Alexandria Highway, Allen Parish, to A. D. Lambert, Baton Rouge. About $47,000. Noted June 23.

★O., Cleveland—City let contract grading, draining, curbing and paving East 93rd St. from Quincy to Quebec Aves., to Bentley Bros., 1836 Euclid Ave., $7,161; Beachwood Ave. from East 131st St. to East Blvd., to Enterprise Paving & Constr. Co., 8444 Bway., $28,154. Work involves 62,800 sq.ft. brick block on 6 in. concrete base, 3,715 sq.ft. stone curbing, etc.

O., Cleveland—City received bids grading, draining and paving (1) East 130th St. from Iroquois Ave. to south end, (2) East

Streets and Roads (Continued)

43d St. from Payne to Hough Aves.; grading, draining, curbing and paving, (3) East 114th St. from Woodland to Helda Aves., (4) Joan Ave. from West 105th St. to Lorain Ave., (5) Berry Ave. from West 73d to West 82d Sts., (6) Robertson Ave. from East 116th to East 122d Sts., (7) Riverside Ave. from Fulton Rd. to West 45th St., (8) Fidelity Ave. from West 105th St. to West Blvd., (9) East 119th St. from Imperial Ave. to Kinsman Rd. from Cleveland-Trinidad Paving Co., The Arcade, (1) $17,218, (4) $14,540, (5) $11,597, (8) $10,656; G. B. Herring, Drexel Ave., (1) $20,287; Burnett & Hathaway, c/o Pavers Exch., Society for Savings Bldg., (2) $16,917; River Constr. Co., Schofield Bldg., (2) $17,393, (3) $12,018, (6) $30,558, (9) $34,269; Bentley Bros., 1836 Euclid Ave., (3) $12,129; Freshwater Constr. Co., Natl. Bldg., (4) $14,629, (8) $10,716; Roehl Bros., West 25th St. and Clark Ave., (5) $11,182, (7) $12,262; Enterprise Paving & Constr. Co., 8444 Bway., (6) $28,838; W. E. McHugh, Cleveland, (7) $12,865; Rieley Bros., The Arcade, (9) $35,715.

O., Cleveland—Comrs. Cuyahoga Co. received bids improving Wallings Rd., involving 1,600 cu.yd. grading, 25,800 sq.yd. macadam on 6 in concrete base, etc., from Ohio Constr. Co., Elyria, $79,615, L. G. Carey, Cleveland, $90,166; Harvard Rd. 3, 3,400 sq.yd. brick block, 1,550 sq.yd. 6 in. concrete base and 1,300 cu.ft. gutter, etc., from E. Gedney, 1216 Addison Rd., $36,716. McHugh Bros., Yale Ave., $37,651.

★**O., Columbus**—Comrs. Franklin Co. let contract grading, building bridges and culverts and paving 2.94 mi. Brice Rd., waterbound macadam, to Harness-Rennick Co., Williamsport, $73,275. Noted May 19.

O., Columbus—W. H. Duffy, dir. Pub. Serv., received bids June 28, grading, draining, curbing and paving 1,735 ft. Broad St. from Anson to Sandusky Sts., asphalt from Franklin Asphalt Paving Co., 209 South High St., $43,911; Cleveland Trinidad Paving Co., The Arcade, Cleveland, $46,504. Noted June 23.

O., East Cleveland (Cleveland P. O.)—City received bid grading and paving Helmsdale-Caledonia and Shawview Grayton Rd., involving 8,276 sq.yd. asphalt, from Cleveland Trinidad Paving Co., The Arcade, Cleveland. About $35,000.

★**O., St. Clairsville**—Belmont Co. let contract paving 2 mi. Neffs Bellaire Rd., concrete, to Seeple & Wolf Constr. Co., Youngstown, $185,044.

★**Mich., Allegan**—State Highway Dept. at office Bd. Rd. Comrs. Allegan Co. let contract grading and surfacing 4.198 mi. Federal Aid Project 32, Sect. B, to A. M. Comb, Kalamazoo, $95,310. Noted June 9.

★**Mich., Dearborn**—City let contract paving Mason St., involving 9,470 sq.yd. 8 in. and 4,830 sq. yd. 6 in. concrete, etc., to Otis Cement Constr Co., 806 Hammond Bldg., Detroit, $28,853. Noted June 16.

★**Mich., Detroit**—City let contract surfacing roadways on Belle Isle, involving 30,000 sq.yd. 2 in. asphalt on 1½ in. binder, to Detroit Asphalt Paving Co., 20 McGraw Bldg., $1.90 per sq.yd.

★**Mich., Detroit**—City received bids paving 1 mi. John R. St. from Six Mile Rd. to Seven Mile Rd., from G. R. Cooke, 1260 Penobscot Bldg., $132,255; Detroit Asphalt Paving Co., 20 McGraw Bldg., $136,598; Cleveland Trinidad Paving Co., 402 Hammond Bldg., $139,966. Noted Apr. 28.

Mich., Detroit—City received bids grading, shaping and paving with sheet asphalt on 8 in. concrete base, (1) Burdeno Ave. from West End to Dearborn Aves., (2) 14th St. from Fenkell to Puritan Aves., (3) Highland Ave. from Wabash Ave. to Pere Marquette R.R., (4) Harvey Ave. from Junction to Campbell Aves., (5) Herkimer Ave. from Dearborn to Dey Aves., (6) Hazelwood Ave. from Linwood to Lawton Aves., (7) Lyon Ave. from Dearborn to Leigh Aves., (8) Melville Ave. from Dearborn to Leigh Aves., (9) Prairie Ave. from Grand River to Burlingame Aves., (10) Stoepel Ave. from Plymouth Rd. to Grand River Ave., (11) Stone St. from Wabash R.R. to Dearborn Ave., (12) Wabash Ave. from Pilgrim to Puritan Aves., from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $22,080, (2) $49,163, (3) $12,361, (4) $11,185, (5) $26,311, (6) $14,918, (7) $21,162, (8) $16,835, (9) $18,427, (10) $16,357, (11) $24,857, (12) $18,432; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $22,725, (2) $49,521, (3) $12,445, (4) $11,807, (5) $27,174, (6) $15,171, (7) $21,740, (8) $17,323, (9) $18,765, (10) $16,670, (11) $25,581, (12) $18,543.

★**Mich., Ithaca**—State Highway Dept. at office Bd. Rd. Comrs. Gratiot Co. let contracts grading, draining and surfacing 0.963 mi. State Trunk Line Rd. 46-3, to Sager Bros., Saginaw, $35,053; 1.909 mi. State Trunk Line Rd. 14-22, Sects. A, B and C. to Holmes, Crane & Bartling, Alma, $67,217; 0.866 mi. State Trunk Line Rd. 14-21, Sects. A and B, to Palma Constr. Co., Ypsilanti. $29,734. Noted June 9.

★**Mich., Manistique**—State Highway Dept. at office Bd. Rd. Comrs. Schoolcraft Co. let contract grading and surfacing 5.044 mi. State Trunk Line Rd. 12-30, to Manistique Dray & Transfer Co., Manistique, $60,031. Noted May 19.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, received bids June 28 paving (1) 6 mi. Sect. C-1, Project 7, Putnam Co., (2) 0.44 mi. Sect. F-129a. Project 7, Putnam Co., (3) 6.44 mi. Combination A, Project 7, Putnam Co., (4) 4.91 mi. Sect. D-1, Project 7, Bureau Co., (5) 3.23 mi. Sect. J-1, Project 7, Bureau Co., (6) 8.14 mi. Combination B, Project 7, Bureau Co., (7) 14.58 mi. Combination C. Project 7, Bureau Co., (8) 2.55 mi. Sect. I-1, Project 7, LaSalle Co., (9) 1.61 mi. Sect. U-1, Project 7, La Salle Co., (10) 3.64 mi. Sect. V-1, Project 8, Macoupin Co., (11) 4.14 mi. Sect. L-1, Project 9, Effingham Co., (12) 2.17 mi. Sect. T-1, Project 9, Madison Co., from Cameron, Joyce Co., Keokuk, Ia., (1) $122,227, (4) $103,421, (6) $178,667; Jansen & Schafer, Pekin, (1) $126,262, (2) $9,202, (5) $70,604, (7) $287,671; J. J. Dunnegan, Shenandoah, Ia., (1 $126,878, (2) $9,349, (3) $136,228, (4) $110,150, (5) $72,049, (6) $180,000, (8) $84,752; J. Mackler & Co., Chicago Heights, (2) $119,645, (9) $36,352; Central Eng. Co., East End St., Davenport, Ia., (3) $150,285, (4) $102,383, (6) $168,714; Keokuk Quarry & Constr. Co., Keokuk, Ia., (5) $70,231 (10) $115,198; Warner Constr. Co., 730 Waveland Ave., Chicago, (8) $101,838; Schmidt Bros., 105 North Clark St., Chicago, (8) $133,185; Miller & Comstock, Peoria, (9) $33,579; Trompeter & Sons, Peru, (9) $34,749; H. H. Hall Constr. Co., East St. Louis, (10) $115,747; W. F. Smith & Co., Keokuk, (10) $115,527; J. W. Etchison, Effingham, (11) $93,054; Barnes & Vehey Constr. Co., Effingham, (11) $93,292; C. J. Moritz, Inc., Effingham, (11) $109,662; Hugh Lumber & Constr. Co., Highlands, (12) $53,372; H. H. Hall Constr. Co., East St. Louis, (12) $55,688; J. Kesl & Son, Edwardsville, (12) $59,024. Noted June 23.

★**Ill., Benton**—City let contract paving 5th, 6th, Mitchell and Election Sts., concrete, to Shidler Constr. Material Co., Kankakee, $34,958. Noted June 16.

★**Ill., Chicago**—Bd. Local Impvts., 207 City Hall, let contract paving Wabash Ave. from 12th St. (Roosevelt Rd.) to 22nd St., 26,000 sq.yd. creosoted wood block on 8 in. concrete, 9,000 ft. concrete, etc., to Ryan Co., 4500 West Division St., $314,020; 103rd. St. from Michigan Ave. to point 252 ft. east of St. Lawrence Ave., 9,880 sq.yd. creosoted wood block on 6 in. concrete, 6,960 ft. concrete, to J. A. Sackley Co., 133 West Washington St., $117,070; East 111th St. from Michigan to Edbrooke Ave. and from Edbrooke to Eberhart Aves., 1,259 ft. sandstone, 6,670 sq.yd. creosoted wood block on 6 in. concrete, 1,940 ft. concrete, etc., to J. A. McQuarry & Co., 189 West Washington St., $90,409.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids June 24 paving (1) West 76th St. from Morgan St. to Racine Ave., involving 4,800 sq.yd. asphalt, 2,800 ft. concrete curbs, etc., (2) West 13th St. from Kedzie to Homan Aves., 4,000 sq.yd. asphalt, 2,500 ft. concrete curbs, etc., (3) Turner St. from Archer Ave. to point 500 ft. west, 1,760 sq.yd. asphalt, 1,000 ft. concrete, (4) Cregier Ave. from East 77th to 78th Sts., 1,940 sq.yd. asphalt, 1,380 ft. concrete, etc., (5) East End Ave. from East 79th St. to South Chicago Ave., 1,720 sq. yd. asphalt, 1,280 ft. concrete, (6) West 18th St. from Keeler to Kostner Aves., 4,320 sq.yd. asphalt, 2,630 ft. concrete, (7) West 49th Pl. from Laflin to Throop Sts., 3,900 ft. asphalt, 2,750 ft. concrete, (8) West 52nd St. from State to Federal Sts., 1,480 sq.yd. asphalt, (9) Federal St. from 77th to 79th Sts., 4,010 sq.yd. asphalt, 2,550 ft. concrete, (10) Gladys Ave. to Laramie to Central Aves., 7,240 sq.yd. asphalt, 5,000 ft. concrete, (11) Hoyne Ave. from Garfield Blvd. to West 59th St., 8,200 sq.yd. asphalt, 5,000 ft. concrete, (12) Lavergne Ave. from Madison to Harrison Sts., 8,600 sq.yd. asphalt, 5,300 ft. concrete, (13) Lawler Ave. from North to Hirsch Aves., 3,570 sq.yd. asphalt, 2,600 ft. concrete, (14) Lookwood Ave. from Madison to Harrison Sts., 8,100 sq.yd. asphalt, 5,040 ft. concrete, (15) Morgan St. from 74th St. to point 477 ft. south 1,620 sq.yd. asphalt, 1,000 ft. concrete, (16) Peoria St. from 60th to 63d Sts., 3,960 ft. concrete, 6,400 sq.yd. asphalt, (17) San Jose St. from Leavitt St. to Oakley Blvd., 1,900 sq.yd. asphalt, 1,300 ft. concrete (18) East 76th St. from Constance to Ridgeland Aves., 1,600 sq.yd. asphalt, 1,180 ft. concrete, etc., from

R. F. Conway Co., 133 West Washington St., (1) $31,495 (2) $24,130 (3) $9,222 (5) $10,026 (7) $20,958 (8) $8,074 (9) $23,042 (11) $48,861 (15) $9,785 (16) $33,460 (17) $11,089 (18) $11,133.

Amer. Asphalt Paving Co., 133 West Washington St., (1) $32,201 (2) $24,405 (3) $9,258 (4) $11,500 (5) $10,134 (6) $21,962 (7) $23,289 (8) $8,116 (9) $22,316 (10) $38,579 (11) $50,975 (12) $54,165 (13) $21,624 (14) $50,015 (15) $9,938 (16) $33,195 (17) $11,550 (18) $11,050.

White Paving Co., 17 North La Salle St., (1) $32,737 (4) $11,933.

H. G. Goeletz, Chicago, (2) $21,604 (6) $19,028 (10) $33,661 (12) $49,717 (13) $19,505 (14) $45,893.

Commonwealth Impvt. Co., Chicago, (3) $9,279 (4) $11,365 (5) $10,004 (7) $23,681 (8) $8,354 (9) $22,605 (11) $49,791 (13) $22,643 (15) $9,730 (16) $33,619 (17) $11,426 (18) $11,009.

Standard Paving Co., 29 South La Salle St., (6) $22,285 (10) $38,676 (12) $54,523 (14) $49,961. Noted June 23.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids June 28 paving (1) West 63d St. from Central to Austin Aves., involving 13,000 sq.yd. vitr. brick on 6 in. concrete, 5,300 ft. concrete curbs, etc., (2) East 111th St. from Michigan to Edbrooke Ave. and Edbrooke to Eberhart Aves., 1,300 sq.yd. sandstone block pavement on 6 in. concrete, 6,670 sq.yd. creosoted wood block on 6 in. concrete, etc., (3) curbing May, Aberdeen, Carpenter, Morgan and West 54th Sts., 12,500 cu.yd. concrete curbs on 3 in. cinder, gravel or sand, from Reidy & Callaghan Coal Co., 133 West Washington St., (1) $102,764 (2) $92,530.

Ryan Co., 4500 West Division St., (1) $103,190; J. A. Sackley & Co., 133 West Washington St., (1) $103,588 (2) $90,999 (3) $31,628; J. A. McQuarry & Co., 189 West Washington St., (2) $90,409; W. P. Cagney, 189 West Washington St., (3) $29,853. Noted June 23.

★**Wisconsin**—State Highway Comn., at dir. office, Eau Claire, let contracts building Bloomer-Connersville Rd., Federal Aid Project 204, Dunn Co., involving 15,628 cu.yd. earth and 220 cu.yd. solid rock excav., 355.5 cu.yd. Class A concrete and 3,740 cu.yd. clay surfacing, etc., to Ofstie & Mulheron, Spring Valley, $24,895; Bloomington-Lancaster Rd., Federal Aid Project 211, to T. H. Gharrity & Sons, Beloit, $35,294; River Falls-Hudson Rd., Federal Aid Project 242, 7,405 cu.yd. excav., 83.07 cu.yd Class A concrete and 2,250 cu. yd. gravel surfacing, also Connorsville-New Richmond Rd., Project 241, St. Croix Co., 4,886 cu.yd. earth and 303 cu.yd. solid rock excav., 306.54 cu. yd. concrete in culverts, etc., to Isaacson & Mulheron, Spring Valley, $7,892 and $12,601 respectively; Eau Claire-Mondove Rd., Project 205, Eau Claire Co., 17,566 cu.yd. earth and 436 cu.yd. rock excav., 8,710 cu. yd. shale surfacing, etc., to Lowe Bros., Strum, $18,145; New Richmond-Bloomer Rd., Project 252, Dunn Co., to G. Gardiner, Ellsworth, $3,635. Noted June 16.

★**Wis., Elkhorn**—Walworth Co. State Rd. and Bridge Comn., let contract to Whitewater Bridge Co., Whitewater, building Ft. Atkinson Whitewater Rd., involving 4,336 cu.yd. excav., at $1.15 per cu.yd., 73.59 cu. yd. concrete culverts, $20, 65.8 cu.yd. concrete in bridges, $23 and 15,800 cu.yd. concrete surfacing, $1.42, etc., total cost $44,504; to P. W. Ryan & Sons, Janesville, building Milwaukee-Janesville Rd., 12,114 cu.yd. excav., $0.72, 83.45 cu.yd. concrete culverts, $22.50 and 3,030 cu.yd. gravel surfacing, $2.18, $17,205.

Wis., Mayville—City received bids paving various streets, involving 14,390 sq.yd. bitulithic on concrete base, from J. R. Rasmussen & Sons, 7th St., Oshkosh, $79,221; White Constr. Co., 68 Wisconsin St., Milwaukee, $80,803; Western Impvt. Co., 840-9th St., Racine, $86,866. Noted June 23.

★**Wis., Milwaukee**—City let contract grading site for Riverside pumping station on Chambers St., to H. Hohensee, Ludington Ave., Wauwatosa, $44,992.

★**Wis., Stevens Point**—City let contract paving, guttering and curbing various streets, involving 75,000 sq.yd. asphaltic concrete, to J. Rasmussen & Son, foot of 7th St., Oshkosh, $1.15 sq.yd. Noted June 9.

Wis., Waukesha—Waukesha Co. State Rd. and Bridge Com. received bids building Waukesha-Genesee Rd., involving (1) 10,-

Streets and Roads (Continued)

624 cu.yd. earth excav., (2) 54.1 cu.yd. concrete culverts, (3) 93.5 cu.yd. concrete in bridges, (4) 32,000 sq.yd. concrete surfacing, (5) 10,600 bbl. cement, from Froemming Bros., Milwaukee, (1) $0.75, (2) $24, (3) $28, (4) $1.31, (5) $2.54, total cost $80,728; McGucken Constr. Co., 425 East Water St., Milwaukee, (1) $1.12, (2) $22.50, (3) $25, (4) $1.24, (5) $2.52, $81,846; Jacobus & Winding, Wauwatosa, (1) $1.08, (2) $24, (3) $28, (4) $1.38, $86,686; Oconomowoc-County Line Rd., (1) 3,741 cu.yd. earth excav., (2) 61 cu.yd. borrow, (3) 21.7 cu.yd. concrete culverts, (4) 12,200 sq.yd. concrete surfacing, (5) 4,000 bbl. cement, from Wilson & Johnson, Appleton, (1) $1.10, (2) $1.10, (3) $22, (4) $1.60, (5) $2.58, $34,500; J. R. Griffith, 1425 Owen Ave., Racine, (1) $1.16, (2) $1.16, (3) $24.50, (4) $1.59, (5) $2.68, $35,060; F. Nelson, 1244 Marquette St., (1) $1.35, (2) $1.35, (3) $25, (4) $1.65, (5) $2.88, $37,325.

★Ia., Newton—Jasper Co. let following contracts grading and draining 12 mi. Primary Rd. east and west of here, involving 95,611 cu.yd. excav., 23,120 lin.ft. 6-12 in. tile, 9 intakes, etc., grading, to Phelan-Shirley Co., 306 South 24th St., Omaha, Neb., $0.314 per cu.yd.; tile labor, to G. Blunt, Webster City, $0.12 per ft.; tile material, to Engle Tile & Fuel Co., Newton.

Minn., Duluth—Until July 22, by Auditor St. Louis Co., Court House, grading, ditching and draining, etc., 5 mi. State Job 2006 between Chisholm and Buhl, involving 120,000 cu.yd. excav., etc.; 1 mi. Federal Aid Project 183, 6,200 cu.yd. excav.; 1.6 mi. State Job 2110, 14,000 cu.yd. excav.; 1 mi. Federal Aid Project 182, 14,000 cu.yd. excav.; 1.62 mi. State Job 2004 Div. 1, 21,000 cu.yd. excav.; 1.6 mi. State Job 2004 Div 2, 19,000 cu.yd. ditch excav.; 1.3 mi. Federal Aid Job 189, 19,000 cu.yd. excav.; 8.5 mi. State Job 2106, 154,000 cu.yd. excav.; 8.2 mi. State Job 2107, 129,000 cu.yd. excav.; 1 mi. Federal Aid Project 180, 19,000 cu.yd. excav.; 2.6 mi. State Job 2003, 25,000 cu.yd. excav.; 6.9 mi State Job 2002, 100,000 cu.yd. excav.; 2.1 mi. Federal Aid Project 202, 31,000 cu.yd. excav.; 2.7 mi. State Job 2102, 43,000 cu.yd. excav.; 4.8 mi. State Job 2005, 70,000 cu.yd. excav., all above on State Rd. 35; 7 mi. State Job 2004, Div. 3, State Rd. 1, 11,000 cu.yd. ditch excav., 1 mi. Federal Aid Project 201, 10,000 cu.yd. excav., and 7.9 mi. State Job 2101, 120,000 cu.yd. excav., both on State Rd. 3.

★Minn., Warren—Marshall Co. let contract grading and draining 10 mi. Job. 2101, Argyle to Snake River, involving 57,038 cu.yd. excav., 9,769 cu.yd. overhaul, etc., to E. Morberg, Oslo, $0.23 per cu.yd.; 13 mi. Job 2102, Sect. 13, 86,560 cu.yd. excav., 3,145 cu.yd. overhaul, etc., to S. G. Enabat, Warren, $0.18 per cu.yd.; 8 mi. Job 2102, Viking to Steiner, 60,000 cu.yd. excav., 40,000 cu.yd. overhaul, etc., to P. O. J. Landin, Warren, $0.27 per cu.yd.; 5 mi. Job 2105, Holt east to Thief River, 45,943 cu.yd. excav., etc., to W. D. Tripp, Viking, $0.19 per cu.yd.; 4.7 mi. Job 2006, 25,000 cu.yd. excav., to Sollom & Moen, Middle River, $0.215 cu.yd.

★Kan., Plainville—City let contract grading, paving, curbing and guttering portions of mill, Meridan, Jefferson and Main Sts., total length 11 blocks, to E. W. Geiger Constr. Co., Leavenworth, $3.725 per sq.yd.

★Kan., Wichita—Sedgwick Co. let contracts to F. Bechtelheimer, Topeka, grading and building culverts on 5.937 mi. Cannon Ball Trail, Sect. B, $21,285; 3.937 mi. Sect. C, $19,188; 4.983 mi. Sect. D, $21,844; 3.976 mi. Sect. E, $11,585; 1.991 mi. Cheney Extension, $8,166. Noted June 9.

★S. D., Sioux Falls—City let contract paving Center Ave. between 18th and 26th Sts. and 25th St. between Phillips and Duluth Aves., to C. H. Atkinson Paving Co., Watertown, $3.35 per sq.yd. Noted June 9.

S. D., Rapid City—City received bid paving various streets, involving 43,000 sq.yd. concrete, from Jensen Paving Co., Rapid City, $3.48 per sq.yd. Noted May 19.

★S. D., Sioux Falls—City let contract surfacing 11 blocks of Main St., 36 ft. wide, brick on concrete base, to J. O. Fowler, 302 North Hawthorne Ave., Sioux Falls, $25,371. Noted June 30.

★S. D., Yankton—City let contract paving 20 blocks, 35 ft. wide, to C. H. Atkinson & Co., Watertown, $58,365. Noted June 9.

★Montana—State Highway Comn., Helena, let contract grading and draining 7 mi. Federal Aid Project 118 and 145-D, Lincoln Co., involving 42,832 cu.yd. excav., 948 sta.yd. overhaul, 1,076 lin.ft. 12-24 in. pipe culverts, 4,527 cu.yd. retaining wall, etc., to B. Helean, Missoula, $69,297.

★Missouri—State Highway Dept., Charleston, let contract building 6.93 mi. state road from Charleston westward, Federal Aid Project 7, Sect. B, Mississippi Co., to R. L. Williams, Wyatt, $144,507. Noted June 23.

★Missouri—State Highway Dept., Jefferson City, let contract building 4.88 mi. state road from Marshfield northward, State Aid Project S 20.60 Webster Co., to Allhands & Davis, Joplin, $15,295; 2.74 mi. state road from Morrellton westward, State Aid Project S 20.40, Franklin Co., to L. W. Spangler, Endinburg, Ill., $12,945; 2.27 mi. state road from Coon Creek near Lake Taneycomo, northward, Federal Aid Project 70 and 1.83 mi. state road from Coon Creek near Lake Taneycomb, southward, Federal Aid Project 71, both Taney Co., to C. J. Williams, Monett, $12,294 and $14,523 respectively. Noted June 23.

★Mo., St. Louis—City let following contracts, resurfacing various streets: Letting 1173, to Skrainka Constr. Co., 319 North 14th St., $14,714; Letting 1174 and 1182, to Eyerman Constr. Co., 1220 South Grand St., $23,270 and $14,353 respectively; Letting 1175, to J. E. Perkinson Constr. Co., 3273 Carter Ave., $12,590; Lettings 1178 and 1179, to Trinidad Asphalt Co., Title Guaranty Bldg., $17,565 and $70,442 respectively; Lettings 1180 and 1181, to Independent Quarry & Constr. Co., 4875 Ashland St., $23, 165 and $25,886 respectively. Noted June 9.

★Ark., Marion — Crittenden Co. let contracts hauling and gravel surfacing 3 mi. road in Impvt. Dist. 7, to S. K. Jones, 1252 Harbert St., Memphis, Tenn., $11,420, 2 mi. to Keliher Constr. Co., South Trust Bldg., Little Rock, $9,360; 3.1 mi. road in Impvt. Dist. 9, to Z. I., Bragg, Marion, $13,575, 9.5 mi., to J. A. Purdue & Co., Pine Bluff, $41,350. Districts to furnish gravel. Noted June 16.

Tex., Cleburne—Johnson Co. received bids grading, surfacing and draining 14.94 mi. Highway 2, the main branch of Meridian Highway, involving 96,347 cu.yd. borrow, 26,852 cu.yd. roadway and 306 cu.yd. rock excav., 1,795.09 cu.yd. Class A and 260.47 cu.yd. Class B, 158,826 lb. reinforcing steel, from: S. M. Bush, care of County Engineer, Cleburne, $120,824; Womack Constr Co., Sherman, $121,948; McCollum Constr. Co., and W. P. McCoy, 224, Texas State Bank Bldg., Ft. Worth, $122,249. County to furnish 53,477 cu.yd. gravel, $97,863. Noted June 16.

★Tex., Lufkin—Angelina Co. let contract grading, surfacing and draining 7.62 mi. State Highway 35, involving 85.4 acres clearing and grubbing, 29,019 cu.yd. roadway and 45,245 cu.yd. borrow excav., 325.5 cu.yd. 1:2:4 concrete, 26,653 lb. reinforcing steel, 14,907 cu.yd. gravel surfacing, to Smith Bros. & Moore, care of Smith Bros., Crockett, $69,821 including 10 per cent for engineering and contingencies.

★Tex., Van Horn—Culberson Co. let contract gravel surfacing and draining 11.02 mi. State Highway 1, to H. E. Williams, 2914 Tularosa St., El Paso, $65,905.

Tex., Wichita Falls—City received bids paving (1) 0.45 mi. Ohio St. from Front to 6th Sts., 40 and 50 ft. wide, concrete; (2) 0.34 mi. Indiana St. from 6th to Front Sts., 60 ft. wide, concrete; (3) 0.73 mi. 15th St. from Lamar to Grace Sts., 36 ft. wide, (a) uvalde rock asphalt, (b) asphalt, (c) bitulithic; (4) Filmore St., (a) asphalt, (b) bitulithic, (c) uvalde rock asphalt, (d) concrete; (5) 0.5 mi. of 6th, Elizabeth and Holliday Sts., (a) 6th St. with concrete, (b) Elizabeth and Holliday Sts. with bituminous pavement, asphalt, bitulithic or uvalde rock asphalt, from Plains Paving Co., 920 Amer. Natl. Bank Bldg., (1) $54,767, (2) $53,700; Wichita Falls Paving Co., Wichita Falls, (1) $59,276, (2) $58,110 (3b) $74,306, (4a) $33,590, (5a and b) asphalt $54,879; L. T. Whithan, Wichita Falls, (2) $53,909, (4d) $33,193; Texas Bitulithic Co., 1101 Praetorian Bldg., Dallas, (3c) $77,047, (4b) $37,198, (5b) bitulithic $49,121; Roberts Bros. Constr. Co., Wichita Falls, (4c) $37,090; (5b) uvalde rock asphalt $46,889. Noted June 2.

Colorado—State Highway Dept., Denver, received bids sand clay surfacing (1) 3.296 mi. Colorado Springs-Florence Rd., Federal Aid Project 94, El Paso Co., (2) 3.28 mi. Limon-Mattison Rd., Federal Aid Project 127, Lincoln Co., (3) 9.875 mi. Limon Genoa Rd., Federal Aid Project 111, Lincoln Co.; grading and draining, (4) 1.051 mi. Ouray-Silverton Rd., Federal Aid Project 102, Fremont Co., (5) 5.097 mi. Buena-Vista-Divide, Federal Aid Project 54, Chaffee Co., (6) 3.308 mi. Redcliff-Gilman Rd., Federal Aid Project 182, Eagle Co., (7) 3.124 mi. Ouray-Silverton Rd., Federal Aid Project 174, Ouray Co., (8) 2.135 mi. San Luis-Ft. Garland Rd., Federal Aid Project 180, Costilla Co.; gravel surfacing (9) 3.2 mi. Sapinero-Gunnison Rd., Federal Aid Project 172, Gunnison Co., (10) 8.787 mi. Cheyenne Wells North Rd., Federal Aid Project 51, Cheyenne Co., concrete paving (11) 4.772 mi. Denver-Ft. Lupton Rd., Federal Aid Project 148, Adams and Weld Counties, (13) 2.078 mi. Greeley-La Salle Rd., Federal Aid Project 149, Weld Co.; shale surfacing (14) 2.698 mi. Rifle-Meeker Rd., Federal Aid Project 187; Rio Blanco Co., from E. H. Howard, (1) $28,122; W. L. Robbins, Florence, (1) $30,581; Mishon, Clark & Teyssier, Pueblo, (1) $30,581; Pickering Bros., Salt Lake City, Utah, (2) $24,768, (3) $43,904, (4) $29,586, (5) $77,551, (7) $60,840; J. J. Bosworth, (2) $25,357; F. L. Hoffman, Denver, (2) $27,496, (4) $30,248; E. Lindsey, 1655 Market St., Denver, (3) $43,777, (10) $27,039; Peterson, Shirley & Guenther, Omaha, Neb., (3) $44,105, (6) $77,485, (7) $64,497; J. M. Gordon, Denver, (5) $74,816, (6) $86,081; Heiselt Constr. Co., Salt Lake City, Utah, (5) $80,874, (6) $78,726, (7) $69,958; C. J. Carlson, (8) $10,571, D. S. Reid, Littleton, (8) $12,662; Levy Constr. Co., Symes Bldg., Denver, (8) $13,629; Giradad & Hotchkiss, Delta, (9) $33,828; E. Wiley, (9) $36,028; Atlas Constr. Co., La Veta, (9) $37,280; Morrison & Crossen, Sterling, (10) $21,673; Monahan & Cunningham, 1711 Market St., Denver, (10) $30,524; A. Dobie, Sterling, (11) $135,132; A. J. Collins, Denver, (11) $136,371; H. R. Phillips, 1605 East 14th Ave., Denver, (11) $138,264, (13) $66,337; Rogers Bros., Florence, (12) $29,768; Dooling Bros., Denver, (12) $29,851; S. E. Winterburn, Grand Junction, (11) $31,282; D. S. McCaldman, Cheyenne, Wyo., (13) $66,534; E. Pierson, Lamar, (13) $69,945; H. Shore, Steamboat Springs, (14) $18,466; E. O'Neil, Meeker, (14) $22,904; T. J. Ehrhart, Denver, (14) $23,514. Noted June 16.

★Washington — State Highway Dept., Olympia, let contract clearing, grading, draining and paving 8.6 mi. Pacific Highway from Tenino to Grand Mound, Thurston Co., involving 99,811 sq.yd. concrete, 30,629 cu.yd. earth and 4,970 cu.yd. rock excav., to F. X. McLellan, Lyon Bldg., Seattle, $285,061. Noted June 2.

★Washington — State Highway Dept., Olympia, let contracts clearing, grading, draining and surfacing 2 mi. Chelan-Okanogan Highway from Chelan to Chelan Falls, involving 21,060 cu.yd. earth and 1,490 cu.yd. rock excav., 3,200 cu.yd. crushed rock, to Henry & McFee, Green Bldg., Seattle, $54,721; 5½ mi. eastern division, Inland Empire Highway, 29,470 cu.yd. earth, 24,825 cu.yd. loose and 28,065 cu.yd. solid rock excav., 6,226 cu.yd. crushed rock, 900 ft. concrete pipe for culverts, to Grant Smith & Co., Henry Bldg., Seattle, $103,830; 4 mi. Inland Empire Highway from Colfax north, 7,935 cu.yd. common and 1,370 cu.yd. rock excav., 42,851 sq.yd. one course concrete, 4,155 cu.yd. subgrade, 4,960 cu.yd. overhaul, to Alloway & George, Old Natl. Bank Bldg., Spokane, $152,788.

★Wash., Chenhalis — City let contract paving 5 blocks of 1st Ave., et al, concrete, to Grays Harbor Constr. Co., Centralia, $33,985.

Wash., Olympia—City received bid June 15, grading and paving 10 blocks Main St., et. al., concrete, from S. A. Moceri, Thompson Bldg., Seattle, $66,608. Above bid rejected. Work will be readvertised. R. Wood, Olympia, engr.

★Wash., Seattle—City let contract paving about 5 mi. Rainier Ave., east side, involving 52,000 sq.yd. concrete, 23,200 lin.ft. concrete curbing, 19,038 lin.ft. water mains, to Jahn & Bressi, New York Blk., $463,963. June 9.

★Wash., Seattle—King Co. let contract paving 7 mi. Renton-Newport Rd., to F. J. McHugh, 3d North and Mercer St., $176,500.

★Oregon—State Highway Dept., Portland let contracts clearing and grading 24.21 mi. Mt. Hood Loop from Multnomal Co. line to Forest boundary at Zigzag, Clackamas Co., Unit 1, to Dixon & Howitt, Portland, $49,960, Units 2 and 3, to Johnson Contg. Co., Lumber Exch. Bldg., Portland, $193,786; concrete paving 3.75 mi. Canby-Aurora Station, Clackamas Co., to Cummins & La Pointe, McMinnville, $108,879. Noted May 19.

California—State Highway Comn., 515 Forum Bldg., Sacramento, received bids grading 12.3 mi. highway between Estrella River and Shannon Pump Sta., San Luis Obispo Co., from F. C. McIntire, Farmers & Merchants Bank Bldg., Stockton, $43,153; C. H. Laiblen, Mantaca, $45,973; C. H. Hudson, 408 Marsh-Strong Bldg., Los Angeles.

Streets and Roads (Continued)

★**California**—State Highway Comn., 515 Forum Bldg., Sacramento, let contract paving 1.5 mi. and grading 5.7 mi. highway between westerly boundary and 2½ mi. northwest of Chico, Portland cement concrete, to W. A. Kettlewell & Sons, Kingsburg; 19.4 mi. between Los Banos and easterly boundary, Portland cement concrete, to Bates & Rogers Constr. Co., 593 Market St., San Francisco, $275,722. Noted June 9.

★**California**—State Highway Comn., 515 Forum Bldg., Sacramento, let contract grading 12.3 mi. highway between Estrella River and Shannon Pump Sta., San Luis Obispo Co., to F. C. McIntire, Farmers & Merchants Bank Bldg., Stockton, $43,153. Noted June 30.

★**Ont., Ottawa**—City let contract paving Somerset St. from Nicholas St. to Range Rd., involving 11,000 sq.yd. asphalt on concrete base, 6,000 lin.ft. curb and gutter, to Standard Paving Co., Central Chambers, $60,000; Stewart St. from Chapel to Charlotte Sts., involving 4,000 sq.yd. asphalt on concrete base with curb and gutter, to O'Learys Ltd., Natl. Bank Bldg., $21,000; King Edward Ave. involving 4,500 sq.yd. asphalt, 2,500 lin.ft curb and gutter, to Pub. Wks. Dept., $24,500.

Railways

PROPOSED WORK

Ontario—Dominion Power & Transmission Co., Terminal Sta., Hamilton, plans to build 3,000 ft. double track electric street railway on York St. from Queen to James Sts., in Hamilton. About $100,000. E. P. Coleman, Hamilton, supt. and engr.

BIDS DESIRED

North Carolina — University of North Carolina, Chapel Hill, receiving bids building 1 mi. line from Southern R.R. station to University power house. About $50,000. T. C. Atwood, Chapel Hill, engr.

Excavation and Dredging

PROPOSED WORK

Ill., Lincoln — Channel — Comrs. Upper Salt Creek D. D. plans to improve channel, involving 1,000,000 cu.yd. Kelker, Gates & DeLeuw, Conway Bldg., Chicago, engrs.

BIDS DESIRED

N. Y., New York—Dredging—Until July 15, by M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., North River, dredging outshore portion of Brooklyn Bridge, Impvt. Boro. of Manhattan, Constr. 1694.

Wis., Wisconsin Rapids — Drainage — Until July 27, by Wood Co. Farm Drainage Bd. draining Dist. 1, involving 3½ mi. 6-14 in. drain tile and open ditch; Dist. 3, 6½ mi. open ditch and tile laterals. A. P. Bean, Vesper, secy. G. W. Severns, Pittsville, engr.

Ia., Bedford—Excavation—Until July 12, by Taylor Co., excavating new channel from Platte River D. D. 4, 6 mi. long, involving 495,000 cu.yd. excav. About $50,000. V. R. Smith, aud. A. J. Van Sise, Bedford, engr.

Ia., Mt. Ayr—Excavation—Until July 11 by Ringgold Co., building new channel from Platte River, D. D. 2, 3 mi. long, involving 273,000 cu.yd. excav. About $28,000. E. E. Cornwall, aud. P. S. Holbrook, Mt. Ayr, engr.

Ia., Ottumwa — Drainage and Levee — Until Aug. 10, by F. W. Prosser, aud. Wapello Co., building drainage ditch and levee, Dist. 1, involving 124,142 cu.yd. excav. and 26,055 cu.yd. earth in levee embankment for Wapello and Davis Counties. About $28,000.

Minn., Olivia—Ditch—Until July 15, at office of A. O. Schmidt, aud. Renville Co., (Olivia) constructing Judicial Ditch 24, in Sibley, McLeod and Renville Counties, involving 297,120 cu.yd. excav., etc. About $31,149.

Ont., Welland—Canal—Until July 25, by I. W. Pugsley, secy. Dept. Ry. & Canals, Ottawa, completing Sects 1 and 2 of Welland Canal. About $2,900,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Ia., Indianola** — Drainage — L. R. McPherson and Warren Co., let contract building D.D. 6, involving 965,793 cu.yd. excav., to Pollard & Campbell, 348 Brandeis Theatre Bldg., Omaha, Neb., $0.1035 per cu.yd. Noted June 9.

Industrial Works

PROPOSED WORK

N. H. Nashua—H. C. Lintott, 25 Main St., plans to build 2 story, brick and concrete garage, on Main St. About $40,000. Private plans.

N. H., Nashau—Mercer Bros., 280 Main St had plans prepared by Hutchins & French, archts., 8 Winter St., Boston, for 2 story, 100 x 100 ft. rein.-con. and brick garage, rein.-con. flooring, concrete foundation. About $100,000.

Mass., Pittsfield — Berkshire Auto Co., North St., plans to build brick, steel and rein.-con. garage, on South St. About $40,000. Architect not selected.

Mass., Pittsfield—City Garage & Sales Co., 501 North St., plans to build 3 story, 100 x 130 ft. brick, steel and rein.-con. addition to garage. About $150,000. Architect not announced.

R. I., Providence — Kaminsky & Levin, c/o H. M. Marshak, archt., 312 Strand Bldg., having plans prepared for 1 story, brick and steel garage, rein.-con. flooring, concrete foundation, on South Main, Gregory and South Water Sts. About $40,000.

R. I., Providence—Z. Zawatsky & Sons, 12 Winslow St., plan to build 1 story, brick, cement and steel garage, on Westminister and Knight Sts. About $40,000. Private plans.

Conn., Bridgeport — Bridgeport Storage Warehouse Co., Whiting St., rejected bids building 5 story, 111 x 112 ft. concrete and hollow tile addition to warehouse. About $175,000. Project indefinitely postponed. Lockwood, Greene & Co., 101 Park Ave., New York City, engrs. and archts. Noted May 26.

Conn., Stamford—Monarch Mfg. Co., care of G. A. Freeman, archt., 292 Main St., having plans prepared for a 2 story, 90 x 140 ft. brick and steel plant, on Pacific St.

N. Y., Brooklyn—M. Cohen & Co., Inc., c/o R. G. Cory, archt. and engr., 50 Church St., having plans prepared for 3 story, brick, steel and concrete factory, rein.-con. flooring, concrete foundation, on Evergreen Ave. and Cook St. About $200,000.

N. Y., Long Island City—C. A. Snyder, c/o F. F. Durang, archt., 1220 Locust St., Phila., having plans prepared for 2 story, 44 x 180 ft., brick and steel factory, rock foundation, here. About $75,000.

N. Y., New York—Dunnigan & Crumley, archts. and engrs., 394 East 150th St., preparing plans for 1 story, 100 x 150 ft., brick, steel and concrete garage, rein.-con. flooring, concrete foundation, on Henwood Pl. near Walton Ave., Bronx. About $50,000. Owner's name withheld.

N. Y., New York—New York Edison Co., East 15th St., soon receives bids building 2 story, 40 x 100 ft., brick, steel and concrete sub-station, rein.-con. flooring, concrete foundation, at 224 East 52nd St. About $175,000. Private plans.

N. Y., New York—A. M. Romaine, c/o Sommerfleld & Steckler, archts. and engrs., 31 Union Sq., having plans prepared for 7 story, brick, steel and concrete factory, rein.-con. flooring, concrete foundation, at 160 Madison Ave. About $75,000.

N. Y., New York—Lorillard Tobacco Co., 119 West 40th St., having plans prepared by Francisco & Jacobus, archts. and engrs., 511 5th Ave., for 3 story, 200 x 205 ft., brick, steel and concrete factory, rein.-con. flooring, concrete foundation, on 73d St. and Ave. A. About $150,000.

Pa., Roanoke—Amer. Vicose Co., Marcus Hook, having preliminary plans prepared by Bollinger Co., engrs. and archts., 105 South 12th St., Phila., for silk plant, here. About $1,000,000.

D. C., Wash. — Aberinale Investment Co. having plans prepared by W. B. Wood, archt., 816 Connecticut Ave. N.W., for garage. About $200,000.

N. C., Goldsboro—See "Buildings."

O., Cleveland—Hilderbrandt Provision Co., 3616 Clark Ave., had plans prepared by Anders & Reimers, archts., Erie Bldg., for 1 story, 66 x 100 ft., brick and steel garage, brick foundation, at 3600 Clark Ave. About $60,000. H. A. Hilderbrandt, secy.

O., Kent—Western Reserve Cotton Mills Co. having plans prepared by Lockwood-Green & Co., archts. and engrs., Hanna Bldg., Cleveland, for 3 story, brick and concrete mill, rein.-con. flooring, brick and concrete foundation. About $300,000.

O., Lakewood (Cleveland P. O.)—Lakewood Fireproof Storage Co., 14410 Detroit Ave., had plans prepared by W. S. Ferguson Co., archts., 1900 Euclid Ave., Cleveland, for 3 story, 60 x 100 ft. warehouse addition, brick, concrete and steel, rein.-con. flooring, brick and concrete foundation. About $75,000.

Ind., Chesterton — United States China Co. plans to construct 2 story, 100 x 300 ft. pottery plant and 3 story, 50 x 50 ft. machinery building, both brick, rein.-con. flooring. About $100,000 and $75,000 respectively. Private plans.

Wis., Milwaukee — Milwaukee-Western Fuel Co., 120 Wisconsin St., having revised plans prepared and soon receives bids building 1 and 2 story, 125 x 200 ft., brick and timber garage, concrete foundation, on South Pierce St. About $100,000. Former bids rejected. Klug & Smith, 69 Wisconsin St., archts. and engrs. Noted June 30.

Wis., Oshkosh — Kaewer Auto Co., c/o Auler & Jensen, F.R.A. Bldg., having plans prepared for 72 x 100 ft., brick, tile and concrete garage, rein.-con. flooring, concrete foundation, on Main St. About $50,000.

Ia., Des Moines—D. F. Rogers, 612 Clinton St., having plans prepared by F. A. Harris, archt., 3815 4th St. for 3 story, 50 x 132 ft. garage and storage building, rein.-con., brick and tile, in Highland Park. About $50,000.

Minn., Young America—Buegel & Mesenbring having plans prepared by A. Plagens, archt., New Ulm, for 1½ story, 50 x 150 ft., brick and concrete garage. About $45,000.

Mo., Marble Hill—City plans to build electric light and power plant. About $50,000. Address C. Alexander, Lutesville. Engineer not selected.

Que., Asbestos—Canadian John Manuele Co., St. James St., Montreal, receives bids about July 15, building factory here. About $350,000. Private plans.

Ont., Beachville—Beachville Co-operative Creamery plans to build rein.-con. and brick plant on Main St. About $50,000. G. J. Cook, pres.

BIDS DESIRED

Conn., Middletown—Buck & Sheldon Inc., archts. and engrs., 60 Prospect St., Hartford, receiving bids building 3 story, 50 x 60 ft. dairy, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Church and Broad Sts., for Millbrook Dairy Co., 4 Main St. About $40,000. Noted May 26.

N. J., North Hackensack—Until July 18, by Rd. Com. of Bd. Freeholders Bergen Co., Court House, Hackensack, building road material storage plant in County Yard 2, here. J. M. Harkness, clk. Dow & Smith, 131 East 23d St., New York City.; advertised in this issue.

Del., Dover—Until July 20, by State Highway Dept. building 1 story 46 x 140 ft. storage shed, frame, corrugated iron siding, concrete foundation. C. M. Upham, ch. engr.; advertised in this issue.

Miss., Starkville—Mississippi Agriculture College receiving bids building 1 and 2 story power house. About $50,000. Link & Trueblood, Chemical Bldg., St. Louis, Mo., engrs.

O., Cleveland—S. Hovanatz, United Bank Bldg., receiving bids building 2 story, 44 x 86 ft. brick garage, brick foundation, on West 50th St. and Lorain Ave. About $50,000. Hulet & Stanton, 3129 Scranton Rd., archts.

Mich., Mt. Clemens—Until July 11, by T. Van Damme, archt., 14 North Front St., building 2 story, brick and steel county farm buildings, concrete foundations for Macomb Co., c/o architect. About $150,000.

Ia., Des Moines—Until July 12, by Boyd and Moore, archts., 1020 West Grand Ave., building 1 story, 46 x 264 ft. tin factory and 99 x 142 ft. foundry, rein.-con. and brick, concrete foundations, on 26th and Dean Aves., for Keith Furnace Co., 200 Court Ave. About $200,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. Y., New York**—Henwood Bldg. Corp., c/o Dunnigan & Crumley, archts. and engrs., 394 East 150th St., will build 1 story, 100 x 150 ft., brick, steel and concrete garage, rein.-con. flooring, concrete foundation, on Henwood Pl. near Walton Ave., Bronx. About $50,000. Work will be done by day labor.

★**N. Y., New York**—L. T. Phelan, c/o Dunnigan & Crumley, archts. and engrs., 394 East 150th St., will build 1 story, 100 x 150 ft., brick, steel and concrete garage, rein.-con. flooring, concrete foundation, on Burnside Ave. near Ryder Ave. About $75,000. Work will be done by day labor.

★**O., Cleveland**—Empire Rolling Mills Co., Bessemer Ave., let contract building 1 story, 81 x 172 ft., brick and steel factory and warehouse, brick foundation, to H. K. Ferguson Co., Vickers Bldg. About $75,000.

O., Cleveland—Noble Refining Co., East 87th St., let contract building 1 story boiler house factory, brick, brick foundation, on East 87th St. and Bessemer Ave., to Girard Constr. Co., The Arcade. About $75,000.

★**O., Cleveland**—Republic Electric Mfg. modeling and building 3 story, 47 x 57 ft. Co., 1820 East 18th St., let contract re-

Industrial Works (Continued)

brick and steel factory and office addition, brick foundation, on East 18th St. and Chester Ave., to Watson Eng. Co., Cook Bldg. About $75,000. Noted Aug. 12.

★**Wis., Milwaukee** — Milwaukee Salés & Investment Co., 425 East Water St., let contract building 2 story, 50 x 100 ft., brick and concrete factory, rein.-con. flooring, concrete foundation, on Sycamore St., to S. M. Siesel, 105 Wells St. About $40,000.

★**Wis., Neenah**—G. Danke, Main St., let contract building 2 story, 40 x 75 ft. creamery, brick and concrete, rein.-con. flooring, concrete foundation, to C. R. Meyer & Sons, 50 State St., Oshkosh. Total cost $40,000. Noted June 9.

★**Wis., Neenah**—Jersild Knitting Co., 331 West Commercial St., let contract building 50 x 200 ft. addition to factory, rein.-con., brick and steel, rein.-con. flooring, to C. R. Meyer & Sons, 50 State St., Oshkosh. About $42,000.

Ia., Camp Dodge (Herrold P. O.)—Pearse, Robinson & Sprague, archts., 1024 Grand Ave., Des Moines, received bids constructing 1 story, 110 x 324 ft. concrete and steel motor transport building, here, for State, from J. Benson Constr. Co., 422 V. N. B. Bldg., Des Moines, $47,950; W. F. Kucharo, Hubbell Bldg., Des Moines, $49,262; Western Constr. Co., 611 Flynn Bldg., Des Moines, $49,509. Noted June 23.

★**Kan., Lawrence**—Kansas University let contract building 2 story, 76 x 118 ft. brick power house, rein.-con. flooring, concrete foundation, to Collins Bros., 536 Rialto Bldg., Kansas City, Mo., $82,077. Noted June 16.

Kan., Osborne—City let contract building power plant, to F. A. Roseberger, Osborne. About $75,000. Noted Mar. 31.

★**Mo., St. Louis**—Fleischman Yeast Co., 1535 Market St., let contract building 1 story, 75 x 170 ft., brick and steel factory, on Forest Park Blvd. and Boyle Ave., to Kremer & Voirol Constr. Co., Century Bldg. About $50,000. Noted May 12.

★**Okla., Duncan**—Magnolia Petroleum Co. let contract building two factories, 1 story, 40 x 260 ft. brick and steel, to Austin Co., 16112 Euclid Ave., Cleveland, O. About $100,000.

Cal., Los Angeles — Bd. Educ. received bids building 5 story, 46 x 137 ft. school warehouse, at 1435 San Pedro St., from Jacobs Constr. Co., 738 H. W. Hellman Bldg., $74,973; L. B. Burck Co., 325 South Hill St., $75,952; Bavin & Burch Co., 173 East Jefferson St., $76,542.

Buildings

PROPOSED WORK

Mass., North Adams — Y. M. C. A. soon lets contract constructing 3 story, 80 x 80 ft. brick and steel building, rein.-con. flooring, concrete foundation, on State St. About $150,000. Jallade, Lindsay & Warren, 37 Liberty St., New York City, archts.

Mass., Taunton—School—Bd. Educ. plans to build 2 story, brick and steel. About $150,000. Architect not selected.

Mass., Worcester — Schools — City plans to build Lakeview School, 10 room, brick, on Coburn Ave. and Lakeview St.: cost $150,000; junior high school on Arthur, Grafton and Dorchester Sts., $1,000,000. Architect not selected.

R. I., Providence—School—Blessed Sacrament Roman Catholic Parish, 171 Academy Ave., had revised plans prepared by Maginnis & Walsh, archts., 100 Boylston St., Boston, for 3 story, 24 room, brick, concrete and steel, on Regent Ave. About $300,000. Noted March 3.

Conn., Danbury — Hospital — Bd. Dirs. Danbury Hospital, Locust Ave., rejected bids opened June 14, and having revised plans prepared by Lord & Hewlett, archts., 345 5th Ave., New York City, for 4 story 35 x 117 ft. nurses home and 4 story, 40 x 125 ft. service building, at hospital. About $300,000. Noted June 9.

Conn., Hartford—Amusement—Park St. Investment Co., c/o E. T. Wiley, archt., 75 Pratt St., having plans prepared for 3 story, brick, to include bowling alleys, assembly hall, theatre, etc., on Park St. About $175,000

Conn., Hartford — School — Southwest School Dist., 118 Asylum St., having plans prepared by I. A. Allen Jr. Inc., archts., 904 Main St., for 2 story, brick and steel addition on Monroe St. About $150,000. K. Gordon, chn.

Conn., Waterbury —School and Hall—Sacred Heart Roman Catholic Church rejected bids building 3 story, 30 x 150 ft. brick, steel and concrete, on Wolcott St. About $150,000. Project postponed until September. T. F. Freney, 51 Leavenworth St., archt. Noted June 2.

Conn., Waterbury—School and Gymnasium—Bd. Educ. had plans prepared by T. F. Freney, archt., 51 Leavenworth St., for 3 story, brick and steel addition to school, on Highland Ave. About $150,000.

Conn., West Hartford (Hartford P. O.)—Temple—Masonic Hall Assn., Fern St., having plans prepared by W. T. Arnold, archt., Hall & Lewis Bldg., Meriden, for 3 story, brick, steel and limestone, on South Main St. About $150,000. C. A. Griswold, chn.

Conn., Wethersfield — Temple — Masonic Temple Assn. having preliminary plans prepared by H. B. Sumner, archt., Wolcott Hill, Boston, for 3 story, brick, concrete and steel, on Main St. About $150,000.

N. Y., Elmhurst (Fluhing P. O.)—Lodge —Queensboro Lodge 878, B. P. O. E., Bway., Flushing, having plans prepared by Ballinger Co., archts. and engrs., 47 West 34th St., New York City, for brick, steel and stone, concrete foundation, on East Queens Blvd. near Grand St., here. About $500,000. J. Hallman, exalted ruler.

N. Y., Flushing—Theatre—Long Island Theatre Corp., 116 West Bway., New York City, plans to build 88 x 136 ft., on Bway. near Main St. About $400,000. Architect and engineer not selected.

N. Y., New York—Apartment—I. Margon, archt. and engr., 355 East 149th St., preparing preliminary plans for 6 story, 170 x 200 ft., brick, steel and stone, concrete foundation, on Grand Concourse and Kingsbridge Rd. About $500,000. Owner's name withheld.

N. Y., New York—Apartment—I. Polstein, 280 Madison Ave., having plans prepared by G. F. Pelham, archt. and engr., 200 West 72d St., for 11 story, 95 x 125 ft., brick, steel and stone, concrete foundation, at 280 Madison Ave. About $800,000.

N. Y., New York — Aparment — Walton Holding Corp., c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., soon receives bids building 5 story, 90 x 100 ft., brick, steel and stone, concrete foundation, on 184th St. and Walton Ave. About $175,000.

N. Y., New York—Church—Unity Congregational Society of New York, 366 5th Ave., having plans prepared by Hoppen & Koent, archts. and engrs., 4 East 43d St., for 3 story, 75 x 75 ft., brick, steel and stone, concrete foundation, at 248-252 West 110th St. About $150,000.

N. Y., New York—College—Manhattan College, 131st St. and Bway., soon receives bids building brick, steel and stone, concrete foundation, on Spuyten Duyvil Parkway opposite Van Cortlandt Park. About $1,000,000. J. W. O'Connor, 162 East 37th St., archt. and engr. Noted April 14.

N. Y., New York — College — New York University, 32 Waverly Pl. had plans prepared by W. S. Gregory, archt. and engr., 1170 Bway., for 7 story, 50 x 50 ft., brick, steel and stone addition, concrete foundation, at 339 East 25th St. About $150,000.

N. Y., New York—Office and Showrooms —Namelock Co., c/o R. Almiroty, archt. and engr., 48 West 46th St., soon receives bids building 11 story, 45 x 95 ft., brick, steel and stone, concrete foundation, at 116 East 25th St. About $150,000.

N. Y., New York—Office and Store—L. Rubin, 370 East 149th St., having plans prepared by DeRose & Cavalieri, archts. and engrs., 370 East 149th St., for 2 story, 50 x 55 x 160 ft., brick, steel and stone, concrete foundation, on 161st St. and Brook Ave., Bronx. About $150,000.

N. J., Millville—High School—Bd. Educ. plans to build 2 or 3 story, steel and brick, concrete foundation, on High St. About $300,000.

N. J., Newark—Schools—Bd. Educ., Broad St., plans to build brick, steel and stone additions to schools on Charlton and Eliot Sts., concrete foundations. About $285,000 and $276,000 respectively. Private plans.

N. J., Princeton—Dormitory—Princeton University having preliminary plans prepared by Day & Klauder, archts., 925 Chestnut St., Phila., for 2½ story dormitory, on campus. About $200,000.

Pa., Lancaster—Gymnasium—Franklin & Marshall College having plans prepared by W. C. Pritchett, archt., 430 Walnut St., Phila., for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on campus and Harrisburg Pike. About $150,000.

Pa., Phila.—Church—Second Church of Christ Scientist, 5443 Greene St., having plans prepared by Day & Klauder, archts., 925 Chestnut St., for 2 story, 68 x 76 ft. rein.-con., brick and steel, rein.-con. flooring, rock foundation, on Green and Coulter Sts. About $200,000.

Pa., Sunbury—Bank and Office—Sunbury Trust Co., 4th and Market Sts., having plans prepared by Ritter & Shay, archts., North Amer. Bldg., Phila., for 6 story, 60 x 120 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 4th and Market Sts. About $200,000.

Pa., Unionville—School—Joint School Bd. of Molin having plans prepared by R. E. Shay, archt., North Amer. Bldg., Phila., for school, here. About $150,000. Address W. H. Fryer, North Brook.

D. C., Wash. — Club — City Club, 1634 I St. N.W., having revised plans prepared by F. B. Pyle, archt., Evans Bldg., for club. About $350,000.

D. C., Wash. — Hotel — Hamilton Hotel Corp., 4th and K Sts., having plans prepared by J. H. DeSibour, archt., Hibbs Bldg., for hotel. About $2,000,000.

D. C., Wash.—Theater—A. E. Walter & Co., Southern Bldg., having plans prepared by R. F. Beresford, archts., Southern Bldg., for theater. About $250,000.

Va., Norfolk — Church — Third Christian Church had plans prepared for 1 story, 100 x 135 ft., brick, steel and stone. About $150,000. W. H. Nicklas, 1900 Euclid Ave., Cleveland, O., archt.

W. Va., Maggie—Insane Asylum—State Bd. Control, Charleston, having plans prepared by P. A. Davis, 3d, archt., 1713 Samson St., Phila., for insane asylum for colored people, here. About $225,000. Noted June 23 under Charleston.

W. Va., Morgantown—Physical Educ. and Chemical—University of West Virginia having plans prepared by P. A. Davis, 3d, archt., 1713 Sansom St., Phila., for physical education and chemical buildings, here. About $300,000 and $400,000 respectively. Noted June 23 under Charlestown.

N. C., Goldsboro—Asylum—North Carolina State Hospital for Insane having surveys made and plans prepared for buildings, heating plant, power house, etc., here. About $300,000. R. G. Ball, 316 East Lane St., Raleigh, engr. Noted March 31.

Fla., Lakeland—Apartment Hotel—C. C. Wilson having plans prepared by B. C. Bonfoey, archt., Petteway Bldg., Tampa, for 3 story, 90 x 100 ft., rein.-con. and tile, rein.-con. flooring. About $100,000.

Tenn., Nashville—Office—Methodist Episcopal Church Bd. of Missions, having plans prepared by Dougherty & Gardener, archts., Stahlman Bldg., for 3 story addition to Doctors Bldg., on Church St. About $250,000. W. W. Pinson, secy.

O., East Liverpool — Church — Methodist Protestant Church plans to build 76 x 120 ft., brick, on Jackson St. and Summit Lane. About $155,000. Architect not selected.

O., Elyria — Bank and Office — Elyria Savings & Trust Co. having plans prepared by Walker & Weeks, archts, 1900 Euclid Ave., Cleveland, for 7 story, 52 x 113 ft., brick, concrete and steel, rein.-con. flooring, brick foundation. About $300,000.

O., Lorain—School—Church of Nativity having plans prepared by J. E. Potter, archt., 802 The Arcade, Cleveland, for 3 story, 66 x 90 ft., brick and concrete, brick and concrete foundation. About $125,000.

O., Massillon — Bank and Office — First Natl. Bank having plans prepared by Walker & Weeks, archts., 1900 Euclid Ave., Cleveland, for 6 or 7 story, 50 x 93 ft. brick, rein.-con. and steel, on Mill and Erie Sts. About $175,000.

O., Rocky River (Cleveland, P. O.)—School—Bd. Educ. plans to build 2 story, brick, concrete and steel additions, rein.-con. flooring, brick and concrete foundation. About $225,000. Address K. Hastings, Rocky River. Architect not selected.

Mich., Northville—Hospital—Detroit Bd. Health, 1415 St. Antoine St., Detroit, having plans prepared by Stratton & Snyder, archts., Union Trust Bldg., Detroit, for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here. About $200,000.

Mich., Bessemer — Hotel — Gogebic Hotel Co. soon receives bids building 4 story, 45 x 96 ft. and 30 x 34 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation. About $150,000. D. Hubert, Menominee, archt.

Ill., East St. Louis—School—School Dist. plans to build brick, rein.-con. and steel. About $350,000. Architect not selected.

Ill., Freeport — Hospital — St. Francis Hospital having plans prepared by G. F. Schreiber, archt., 105 West Monroe St.,

Buildings (Continued)

Chicago, for 4 story, 50 x 130 ft. brick, steel, rein.-con. and stone addition. About $180,000.

Ill., Hurst—High School—Bd. Educ. having plans prepared by Gill & Fath, archts., 1328 Walnut St., Murphysboro, for 2 story, 80 x 115 ft. brick, rein.-con. and steel. About $100,000.

Ill., Paxton — High School — Bd. Educ. plans to build 3 story, brick and stone, on East Center St. About $400,000. J. C. Strong, pres. Architect not selected.

Wis., Milwaukee — Apartment — Prospect Towers Corp., c/o A. C. Eschweiler, archt., 141 Wisconsin St., soon receives bids building 4 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Prospect Ave. About $500,000. Noted April 7.

Wis., Milwaukee — Apartment—M. Tullgren & Sons, archts., 425 East Water St., rejected bids building 7 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, at 264 Prospect Ave., for H. Marggraff, 964 10th St. About $300,000 Work will be readvertised. Noted June 16.

Wis., Wausau — Hospital — St. Marys Hospital and E. Brielmaier & Sons, archts., 432 Bway, Milwaukee, soon let contract building 4 story, 44 x 145 ft. hospital and 1 story, 32 x 36 ft. boiler house and laundry, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $275,000. Noted June 23.

Ia., Audubon—Temple and Post Office—Audubon Masonic Home Assn. rejected bids opened June 21, building 3 story, 50 x 99 ft. brick, tile and terra cotta. About $75,000. G. Weaver, secy. W. W. Beach Co., 238 Motor Mart, Sioux City, archts. Noted June 2.

Ia., Dubuque—Junior High School—Bd. Educ., Bank and Insurance Bldg., having plans prepared by J. Royer, archt., Flat Iron Bldg., Urbana, for 3 story, rein.-con., brick, tile and stone. About $325,000.

Minn., Buhl—High and Grade School—City voted $500,000 bonds to build 3 story addition to high school and new 2 story grade school, rein.-con., brick, stone and tile. F. Anderson, clk. A. W. Kerr & Co., 240 La Salle Bldg., Minneapolis, archts.

Minn., Isle—School—Bd. Educ. rejected bids opened April 29, building 2 story, rein.-con., brick and tile. About $75,000. E. C. Boeck, clk. Foss & Foss, St. Cloud, archts. Noted April 14.

Minn., Minneapolis — Church — Third Church of Christ Scientist, receive bids about July 15, building 75 x 100 ft. brick, concrete, stone and steel, on Lagoon and Holmes Aves. About $150,000. Hewitt & Brown, Inc., 1200 2nd Ave. S., archts.

Minn., St. Paul—Seminary—Archdiocese of St. Paul having plans prepared by Maginnis & Walsh, archts., 100 Boylston St., Boston, for 2 and 3 story, rein.-con., brick tile and stone at Lake Johanna. About $500,000.

Neb., Blair — College — United Danish Lutheran Church, care of A. W. Lund, secy., 2211 28th Ave. S., Minneapolis, Minn., plans to construct rein.-con., brick, tile and stone buildings for Dana College, here. About $500,000.

N. D., Jamestown—High School—Bd. Educ. having plans prepared by Shannon, Boyd & Boyd, archts., Jamestown, for 3 story, 75 x 200 ft., rein.-con., brick and steel. About $200,000. C. F. Tweed, 531 Met. Bank Bldg., Minneapolis, Minn., engr.

Mo., Kansas City—Hall and Museum—City having plans prepared by H. Magonigle, archt. and engr., 101 Park Ave., New York City, for brick, stone and marble, concrete foundation. About $2,000,000.

Mo., St. Louis—Hospital—Missouri Pacific R.R., c/o P. F. Vasterling, 2102 South Compton St., had revised plans prepared by C. H. Wray, archt., Rialto Bldg., for 6 story, 100 x 200 ft., brick, stone and concrete, on Grand and Shaw Sts. About $450,000.

Tex., Cisco—High School—City soon receives bids building 3 story, rein.-con. About $200,000. Robertson & Griesenbeck, South West Life Bldg., Dallas, archts.

Tex., Gainesville — High School — City plans to build 3 story, brick and concrete. About $150,000. Fuston & Van Valkenburgh, 1309 Southwestern Life Bldg., Dallas, engrs. W. A. Packett, Sherman, archt.

Tex., Weslaco — School — Smith & Kelly, archts., 412 Natl. Bank of Commerce Bldg., San Antonio, opens bids latter part of July, building 2 story, 112 x 128 ft. rein.-con., rein.-con. flooring, for School Bd. About $90,000.

Okla., Muskogee — College — Bacone Indian University having plans prepared by Dawson & Bassham, archts., 207 Barnes Bldg., for 35 college buildings, rein.-con., steel, stone and brick, rock, concrete and brick foundations. About $5,000,000.

Col., Colorado Springs — Auditorium — City having plans prepared by C. E. Thomas and MacLaren & Hetherington, archts., 322 Hagerman Bldg., for auditorium. About $390,000. E. E. Ewing, clk.

Cal., Pasadena—Home—Pasadena Home for Aged, c/o F. L. Roehrig, archt., 319 Braley Bldg., having plans prepared for 2 story, hollow tile, concrete foundation, on Santa Clara Ave. About $200,000.

Ont., Walkerville—High School—School Bd. having plans prepared by J. R. Boyde, archt., Bartlett Bldg., Windsor, for rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Huron St. About $450,000.

BIDS DESIRED

Mass., North Adams—School and Gymnasium—School Dept. receiving bids building 2 story, brick and steel, rein.-con. flooring concrete foundation, on State St. About $150,000. N. C. Bond & Co., 476 Main St., Springfield, archts.

Conn., New Haven—Laboratory—C. S. Palmer, archt., 114 Whitney Ave., receiving bids building 2 story, 40 x 128 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation, for New Haven Hospital, 330 Cedar St. About $100,000. Noted June 23.

Conn., Thomaston—High School—School Bd. receiving bids building 2 story, 80 x 140 ft. brick and steel, rein.-con. flooring, concrete foundation, on Main St. About $200,000. F. A. Webster, 51 West Main St., Waterbury, archt.

N. Y., Buffalo—Schools—Until July 11, by Bd. Educ., 1401 Telephone Bldg., constructing primary school 21 on Amherst St. and Park Lake Ave., 2 elementary schools, 1 on Poplar and Doat Sts. and other on Porter Ave. and Niagara St., also additions to elementary school 21 on Hertel Ave. and elementary school 60 on Ontario and Saratoga Sts. Noted June 30.

N. Y., Buffalo—Schools—Until **July 12**, by Bd. Educ., 1401 Telephone Bldg., constructing following Intermediate Schools, No. 71 on Roslyn St. and Lang Ave., No. 9 on Sherman and Lovejoy Sts., No. 11 on Moreland St. and Bailey Ave., No. 12 on Lorraine Ave. near Abbott Rd. Address Associated Buffalo Architects, 232 Delaware Ave. Noted June 30.

N. Y., Buffalo—Schools—Until July 13, by Bd. Educ., 1401 Telephone Bldg., constructing following Intermediate Schools, No. 2 on Hertel Ave. and Shoshone St., No. 6 on Northampton St., No. 8 on South Elmwood Ave. and Tupper St. Address Associated Buffalo Architects, 232 Delaware Ave. Noted June 30.

N. Y., New York—Bank—Until July 12, by United States Mortgage & Trust Co., 950 Madison Ave., building 2 story, brick and stone, concrete foundation, on Madison Ave. and 74th St. About $500,000. H. O. Chapman, 334 5th Ave., archt. and engr. Noted May 19.

Pa., Harrisburg—Office—Until Aug. 2, at office of T. W. Templeton, supt. Pub. Grounds and Bldgs. of Commonwealth of Pa., constructing new south office building in Capitol Park; advertised in this issue.

W. Va., Huntington—Dormitory—Until July 15, by State Bd. Control, Charleston, building 2 story, 37 x 110 ft., brick, stucco and stone. R. M. Bates, Jr., 1st Natl. Bank Bldg., archt. J. S. Lakin, Charleston, supt. construction.

O., Bay Village—School—Until July 21, by Bd. Educ. building 2 story, brick and concrete, rein.-con. flooring, brick and concrete foundation. About $225,000. H. A. Thompson, clk. C. W. Bates, Marshall Bldg., Cleveland, archt.

Mich., Wyandotte — High School — Until July 14, (change of date) by E. Haas, secy., Bd. Educ., 65 Spruce St., building 3 story rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Eureka, Sycamore, 5th and 7th Sts. About $500,000. B. C. Wetzel & Co., Dime Bank Bldg., Detroit, archts.

Ill., De Kalb — High School — Bd. Educ. wil build 3 story, 114 x 162 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation. About $225,000. Owner will build by separate contracts. C. W. Whitten, supt. J. C. Llewelyn, 38 South Dearborn St., Chicago, archts. Noted June 23.

Ill., Niles (Chicago P. O.)—Infirmary—E. Brielmaier & Sons, archts., 432 Bway., Milwaukee, receiving bids building 2 and 3 story, brick and concrete, rein.-con. flooring, concrete foundation, for St. Hedwigs Industrial School for Girls, here. About $160,000.

Ill., Onargo—Seminary—H. R. Temple, archt., Lincoln Bldg., Champaign, receiving bids building, 2 and 3 story, 48 x 78 ft. and 46 x 64 ft., brick, stone, concrete and hollow tile, for Grand Prairie Seminary. About $150,000. Noted June 23.

Wis., Sheboygan—Bank and Office—Until July 14, by Security Natl. Bank, building 7 story, 80 x 110 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation. About $500,000. Brust & Philipp, Bway Bldg., Milwaukee, archts. Noted June 23.

Minn., Bemidji—High School—Until July 12, (change of date) by Bd. Educ. building 3 story, 148 x 230 ft. rein.-con., brick, tile and stone. About $250,000. J. T. Tuomy, clk. E. F. Broomhall, 710 Alworth Bldg., Duluth, archt. Noted Mar. 10.

Minn., Minneapolis—Music—Until July 13, by State Bd. Control, c/o D. F. Mullen, secy. Capitol, St. Paul, building 3 story, 95 x 160 ft. rein.-con., brick, tile and stone on State University campus, here. About $400,000. C. H. Johnston, 715 Capital Bank Bldg., St. Paul, archt. Noted Nov. 11, 1920.

Kan., Wichita—Theatre—Until July 13, by J. E. Eberson, archt., 64 East Van Buren St., Chicago, building 3 story, 40 x 90 ft. and 7 story, 50 x 140 ft. brick, rein.-con and terra cotta, on 1st and Lawrence Sts., for Orpheum Bldg. Co., c/o A. Gray and G. W. Barr, 702 Schweiter Bldg. About $700,000.

Neb., Omaha — Store and Office — Until July 12, by Standard Oil Co., 19th and Farnam Sts., building 4 story, 72 x 88 ft rein.-con. and brick. About $200,000. J and A. McDonald, 523 Peters Trust Bldg., archts.

Tex., Denison—Hotel—Until July 11, by Denison Hotel Co., building 100 room, rein.-con. About $225,000. Robertson & Griesenbeck, Southwest Life Bldg., Dallas, archts.

Ore., Pendleton—Hospital—Until July 12, by State Bd. Control, Salem, building 3 story 53 x 164 ft., with 28 x 60 and 28 x 32 ft. wings, rein.-con., at Eastern Oregon State Hospital, here. About $160,000. M. H. Whitehouse, 633 Kearney St., Portland, archt.

Ont., Hamilton—School—Until July 18, by R. H. Foster, secy. Bd. Educ. building 4 story, rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, on Wentworth St. N. About $800,000. Witton & Walsh, Hamilton Provident & Loan Bldg., archts.

Ont., Saulte Ste. Marie—High School—Until July 18, by J. T. Later, secy. High School Bd., building 3 story, 16 room, rein.-con., brick and steel, concrete foundation, on Tancred and Wellington Sts. About $350,000. Findlay & Foulis, 527 Queen St. E., Toronto, archts. Noted June 9.

Man., Winnipeg — Collegiate — Until July 26, by School Bd., building 3 story, 265 x 318 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Alverstone and Wellington Sts. About $1,000,000. J. N. Semmens, 508 Great West Perm. Bldg., archt.

Man., Winnipeg — Medical College—Until July 14, by A. A. Stoughton, archt., University Bldg., constructing 2 story, 60 x 160 ft. rein.-con., brick and steel, rein.-con flooring, concrete foundation, on Bannatyne and Emily Sts., for for Provincial Government. Cost between $200,000 and $250,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Mass., Boston**—Municipal—City let contract building 4 story, 105 x 125 ft. brick, on Shawmut Ave., to M. Seretto, 3 Tremont Row. About $360,000. Noted June 30.

★**Mass., Worcester**—College—Assumption College, Assumption Ave., let contract remodeling 3 story college, to U. Dorais, Exeter St. About $150,000.

★**Conn., Stamford**—School—City let contract building 2 story addition to Cove Rd. School, brick, steel and concrete, rein.-con. flooring, concrete foundation, to Vuono Constr. Co., Bann Bldg. About $125,000. Noted June 23.

★**N. Y., Brooklyn**—Apartments—Bestrose Realty Co., c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., New York City, will build three 4 story, 55 x 100 ft. brick, steel and stone, concrete foundations, on 17th Ave. and 75th St., here. About $150,000 each. Work will be done by day labor.

★**N. Y., New York** — Apartment — S. Brand, c/o C. Schaefer, archt. and engr., 394 East 150th St., will build 5 story, 100 x 100 ft. brick, steel and stone, concrete foundation, on Jessup Ave. About $200,000. Work will be done by day labor.

★**N. Y., New York**—Apartment—Lencrif Realty Co., c/o M. W. Del Gaudio, archt. and engr., 158 West 45th St., will build 5 story, 100 x 100 ft. brick, steel and stone, concrete foundation, on 259th St. and Newton Ave. About $150,000. Work will be done by day labor.

Buildings (Continued)

★N. Y., New York — Apartments — Eight Sixty West One Hundred Eighty-first St. Corp., c/o G. F. Pelham, archt. and engr., 200 West 72d St., will build two six story, brick, steel and stone, concrete foundations, at 860 West 181st St. About $250,000 each. Work will be done by day labor.

★N. Y., New York—Apartment—Slawson & Hobbs, 162 East 72nd St., will build 5 story, 96 x 100 ft., brick, steel and stone, concrete foundation, on Dyckman St. and Sherman Ave. About $300,000. Work will be done by day laor. J. M. Felson, 1133 Bway., archt. and engr.

★N. Y., New York—Apartment—Zedee Realty Corp., c/o G. F. Pelham, archt. and engr., 200 West 72nd St., will build 5 story, 90 x 100 ft. brick, steel and stone, concrete foundation, at 4320 Bway. About $175,000. Work will be done by day labor. Noted June 23.

★N. Y., New York — Bank and Office — Columbia Trust Co., 60 Bway., let contract building 3 story, brick and stone, brick foundation, at 163 West 125th St., to V. Lynch, 13 Park Row. About $200,000. Noted June 9.

★D. C., Wash.—Apartment-Hotel—R. P. Whitty Co., Union Trust Bldg., will build apartment hotel. About $250,000. Work will be done by day labor. J. H. DeSibour, Hibbs Bldg., archt.

★D. C., Wash.—Legation—G. O. Totton, archt., 808 17th St., let contract to W. P. Lipscomb, Dist. Natl. Bank Bldg., constructing legation building, on 16th and Fuller Sts. N. W., here, for Netherlands Government. About $200,000. Noted May 5.

★Va., Richmond—Library—State Bldg. Comn. let contract building library on 13th and Broad Sts., to J. T. Wilson Co., Mutual Bldg. About $3,000,000; cost plus percentage basis.

★N. C., Chapel Hill—Dormitories, etc. University of North Carolina let contract constructing dormitories, heat, light and water plants, and several other buildings, to T. C. Thompson & Co., 609 North Smith St., Charlotte. About $1,100,000. Noted June 23.

★Fla., Jacksonville—Apartment Hotel—C. T Doty, 420 Main St., let contract building 3 story, 70 x 190 ft. rein.-con., tile and brick, rein.-con. flooring, on Riverside Ave., to B. P. Kennard, 1517 Ernest St. About $100,000, cost plus percentage basis.

★O., Akron—Hotel and Theatre—Commodore Perry Hotel Co., care of B. A. Shriber, let contract building 10 story, 132 x 251 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, to G. A. Fuller Co., Swetland Bldg., Cleveland. About $2,000,000. Noted May 5.

O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., received bids building two 3 story, 40 x 140 ft. wings, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Parkwood Dr. and Everton Ave., from W. Moore Co., 1274 West 4th St., $185,990, Drummond-Miller Co., 4500 Euclid Ave., $214,830, Tenbusch Parker Constr. Co., Union Bldg., $214,910; steam heating work, from Feldman Bros., Barrett Ave., $39,850. Noted June 9.

★Mich., Calumet — Hospital — Calumet Pub. Hospital let contract building superstructure for 3 story concrete, brick and steel, rein.-con. flooring, to W. F. Milford, Calumet. About $150,000.

★Mich., Detroit — Temple — Temple Beth El, 3414 Woodward Ave., let contract building 5 story, 121 x 200 ft. with 1 story auditorium, rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on Woodward and Gladstone Aves., to Brayton Eng. Co., 907 Kresge Bldg. About $500,000. Noted April 7.

★Ill., West Frankfort — Church — St. Marys Catholic Church let contract building, brick, stone and steel, to Bauer Bros., Belleville. About $150,000.

Ia., Belle Plaine—High School—Bd. Educ. received bids building 2 story, 125 x 132 ft. rein.-con., brick and tile, from J. Park Co., Belle Plaine, $108,575; Currie-Simpson Co., Waterloo, $109,490; J. Miller, 502 Black Hawk Bank Bldg., Waterloo, $110,980. Noted June 2.

Ia., Council Bluffs—Hospital—Jennie Edmundson Hospital Assn. received bids constructing 3 story, 42 x 124 ft. hospital on Oak and Pierce St. (a) main building, (b) kitchen, from Parsons Co., 616-620 Keeline Bldg., Omaha, (a) $129,478, (b) $18,790; J. E. Wakefield, 715 Brandeis Theatre Bldg., Omaha, (a) $129,000, (b) $20,000; Jones Eng. & Constr. Co., Omaha, (a) $131,989, (b) $19,128. Noted June 16.

★Ia., Orient—School—Bd. Educ. let general contract building 2 story, 66 x 120 ft. rein.-con., brick, tile and stone, to Campbell Constr. Co., Creston. About $87,900. Noted June 16.

★Minn., Hallock—Hospital—Kittson Co. War Veterans Memorial Hospital Assn. let contract building 2 story, rein.-con., brick, tile and stone, to Minneapolis Bridge Co., 1035 Metropolitan Life Bldg., Minneapolis. About $100,000; cost plus percentage basis. Noted March 17.

★Minn., Minneapolis—High School—Bd. Educ. let general contract building Jordan Junior High School, 3 story, 196 x 262 ft. with 2 story, 153 x 159 ft. wing, rein.-con., brick, tile and stone, to J. C. Nelson & Son, 619 Plymouth Bldg., $416,800; heating and ventilating, to H. Kelly Co., 925 Plymouth Bldg., $60,542. Noted June 23.

Kan., Salina — Office — Farmers Union Mutual Insurance Co., let general contract building 4 story, 75 x 100 ft., to Peterson Constr. Co., Salina $106,680; heating and plumbing, to Salina Plumbing Co., Salina, $19,750. Noted May 26.

★Neb., Omaha—Theater—C. H. Crane, archt., 400 Huron Bldg., Detroit, Mich., let contract to J. Black, 3545 Harney St., building 5 story, 110 x 132 ft. rein.-con., brick and steel, on 5th and Douglas Sts., for World Realty Co., 4110 Farman St. About $500,000. Noted June 23.

★Mo., St. Louis—Apartments—C. Ulman, 4540 Lindell Blvd., will build two 8 story, 50 x 100 ft. and 92 x 95 ft., brick and steel, rein.-con. flooring, on Kingshighway and Lindell Blvd. About $500,000 each. Work will be done by day labor under supervision of P. J. Bradshaw, archt., International Life Bldg. Noted May 19.

★Tex., Abilene—Schools—City let general contract building one 59 x 75 ft. and two 59 x 123 ft., concrete, rein.-con. flooring, to Walsh & Burney, Hicks Bldg., San Antonio. About $190,000.

Ont., Hamilton—Nurses Home—Hospital Bd. received lowest bid building 5 story, 45 x 175 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Barton and Euclid Aves., from W. H. Yales Constr. Co., 17 Main St. E, About $280,000.

★Ont., Richmond Hill — Home — Loyal True Blue Orange Lodge, Orange Bldg., Toronto, let general contract building 3 story, 125 x 195 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to R. H. Harman & Son, 248 Dupont St., Toronto, $197,666. Noted April 14

Ont., Toronto — School — Bd. Educ. received following bids building Riverside Technical School, 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, (general contract), from Witchell & Son, 156 St. Helens Ave., $619,888; plumbing and heating, from W. C. Edge Ltd., 47 Richmond St. E., $117,537; wiring, from Bennett & Wright, 72 Queen St. E., $45,470. Noted June 9.

★Ont., Windsor—Temple—Masonic Lodge let general contract building 3 story, 110 x 112 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Erie and Ouellette Sts., to Nuxlow & Gale, 207 Ouellette Ave. About $145,000. Noted June 2.

Federal Government Work

PROPOSED WORK

O., Dayton—Hospital—U. S. Natl. Military Home having plans prepared by Schenk & Williams, archts., Mutual Home Bldg., for 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, at Military Home, here. About $200,000.

Cal., San Diego—Dredging and Filling—Spec. 4485—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to dredge and fill at Repair Base, here.

BIDS DESIRED

R. I., Providence—Dredging—Until July 22, by U. S. Engineer, Providence, dredging in New Haven Harbor, Conn.; advertised in this issue.

R. I., Providence—Removing Boulders—Until Aug. 1, by U. S. Engineer, removing boulders, etc., at Point Judith Harbor of refuge; advertised in this issue.

N. Y., New York—Fire Alarm System—Spec. 4470—Until July 20, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing fire alarm and watchmans' signal system, here. Noted June 16.

Pa., Pittsburgh—Lock Valves—Until July 25, by U. S. Engineer, furnishing and delivering for Lock 5, Allegheny River; advertised in this issue.

N. Y., New York—Dredging—Until July 29, by U. S. Engineer, Room 316, Army Bldg., dredging in Shrewsbury River and Keyport Harbor, N. J.; advertised in this issue.

W. Va., Wheeling—Double Houses—Until July 27, by U. S. Engineer, constructing two 2 story double houses at Dams 14 and 26, Ohio River; advertised in this issue.

Miss., Vicksburg — Towboat — Until July 22, by 3d Mississippi River Dist., P. O. Box 404, furnishing towboat; advertised in this issue.

Tenn., Memphis—Levee Work—Until July 11, by Mississippi River Comn., 1st and 2d Dists., Customhouse, constructing levee work in Upper and Lower St. Francis and Reelfoot Levee Dists.; advertised in this issue.

Tex., Galveston—Submerged Riprap Spurs—Until July 15, by U. S. Engineer, constructing from North Jetty at Port Arkansas.

Cal., San Diego—Sprinkler System—Spec. 4466—Until July 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing, here. Noted June 16.

Cal., San Francisco—Dredging—Until July 20, by U. S. Engineer dredging in San Rafael Creek, here.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

R. I., Newport—Refrigerator Equipment — Spec. 4363 — Bureau Yards & Docks, Navy Dept., Wash, D. C., received bids June 22 installing at Naval Sta., here, from York Mfg. Co., York, Pa., (1) $5,910 (60 days): J. Manville Inc., 296 Madison Ave., New York City, (1) $6,827 (60 days). Noted June 16.

★N. Y., New York—Dump Scow—Spec. 4474—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract for dump scow, to Phoenix Constr. Co., 41 Park Row, $22,450 (68 days). Noted June 30.

N. J., Camden—Dredging—Dist. Engineer, 815 Witherspoon Bldg., Phila., Pa., received bids June 28 dredging in Delaware River, here, involving (a) Sect. A, 137,000 cu.yd. scow measurement (b) Sect. B, 225,000 cu. yd. scow measurement, from Amer. Dredging Co., Marine & Merchants Bldg., Phila., (a) $0.40, (b) $0.43; Arundel Corp., 2 Pratt St., Baltimore, (a) $0.40, (b) $0.40. Noted June 9.

★D. C., Anacostia—Shop Building—Spec. 4389—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing at Naval Air Sta., here, to P. H. Sears, 410 Bond Bldg., Wash., D. C., $31,345 (120 days). Noted June 30.

D. C., Washington—Remodeling Roof—Treas. Dept. received bids remodeling U. S. Treasury roof, from M. Serreto, 3 Tremont Row, Boston, $159,000; Hillard & Pierce, New York City, $212,249; Wise Granite Constr. Co., Amer. Natl. Bank Bldg., Richmond, Va., $233,390.

Va., Fort Meyer — Road — Constructing Quartermaster, Room 2416, War Trade Bldg., 20th and C Sts. N. W., Wash., D. C., received bids June 25, constructing roads, here, (1) work complete, from Cranford Paving Co., 2620 East St. N. W., Wash., D. C., (1) $71,600 (2) $29,096 (3) $22,200 (4) $690 (5) $7,700 (6) $1,200 (7) $2,500 (8) $4,300; W. F. Cush, 3rd and R Sts., Wash., D. C., (1) $80,953 (3) $27,300 (3) $24,000 (4) $1,900 (5) $7,300 (6) $1,143 (7) $4,900 (8) $3,600, L. M. Johnson, Wash., D. C., (1) $98,884 (2) $29,000 (3) $21,000 (4) $900 (5) $30,000 (6) $1,400 (7) $5,000 (8) $8,000. Noted June 16.

★Va., Hampton Roads — Machine and Carpenter Shop—Spec. 4382—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, here, to W. F. Martins, 53 Franklin St., Rochester, N. Y., $108,434 (165 days).

★Va., Quantico—Breakwater—Spec. 4463—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract extending breakwater, at Marine Barracks, here, to Carpenter & Petrie, P. O. Box 1243, Norfolk, $27,391 (120 days). Noted June 30.

★Va., Quantico—Trestle, etc.—Bureau Yards & Docks, Navy Dept., Washington, D. C., let contract constructing trestle, bridge and concrete road, at Marine Flying Field, here, to Monaghan & Imbach, 3000 Greenmount Ave., Baltimore, $86,307.

★Kan., Ft. Leavenworth — Leavenworth Co. let contract grading, surfacing and draining Sect. C, Federal Aid Project 13, bituminous macadam, to Missouri Valley Bridge & Iron Co., 4th and Walnut Sts., Leavenworth, $143,058.

★Tex., Ft. Worth — Deepening Water Wells—Spec. 4472—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract deepening wells, here, to Q. D. Lewis, 2101 Market Ave., $24,476 (170 days). Noted June 23.

★Arizona—State Highway Dept., Phoenix, let contract paving, grading, draining and constructing bridges on 2.543 mi. Ray-Superior Highway, Federal Aid Project 28, involving (a) 26,300 cu.yd. excav. (b) 226 cu.yd. Class A and (c) 259 cu.yd. Class B concrete, to R. Toohey, Phoenix, (a) $1.06 (b) $25, (c) $23, etc., total $51,846.

Federal Government Work (Continued)

Cal., San Diego—Distributing System—Spec. 4442—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 29 constructing steam distributing system and returns, here, (1) work complete, from C. H. Julian, 1228 2nd St., San Francisco, (1) $10,949 (90 days); T. Haverty Co., 8th and Maple Sts., Los Angeles, (1) $12,480 (120 days); J. R. Proctor, 120 Liberty St., New York City, (1) $12,900 (120 days). Noted June 16.

Cal., San Diego—Elevators—Spec. 4441—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 29, constructing at storehouse, here, (1) work complete, from Hollister Whiteney Co., Quincy, Ill., (1) $22,653 (180 days) (2) $11,627; Otis Elevator Co, Metropolitan Bank Bldg., Wash., D. C., (1) $28,600 (180 days) (2) $14,584; Kastner & Hecht, 1300 West Harrison St., Chicago, (1) $31,316 (140 days) (2) $16,000 (120 days). Noted June 16.

★Cal., San Diego—Sewer and Water Systems—Spec. 4365—Bureau Yards & Docks Navy Dept., Wash., D. C., let contract constructing, here, to De Waard & Cobham, 207 Granger Bldg., $103,345 (150 days). Noted June 30.

★Cal., San Diego—Machine Shop, etc.—Spec. 4411—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing machine shop, fire engine house, etc., at Naval Base Air Sta., here, to K. E. Parker Co., 519 California St., $121,400 (210 days).

H. T., Pearl Harbor—Foundations—Spec. 4396—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids June 29, constructing foundations for machine shop, at Naval Sta., here, from Hawaiian Contg. Co., 854 Kauhunana St., Honolulu, (1) $59,675 (120 days); W. F. Martin, 53 Franklin St., Rochester, N. Y., (1) $68,297 (140 days); R. E. Wooley, 305 James Campbell Bldg., Honolulu, (1) $78,000 (130 days). Noted May 12.

★Alaska, Sitka — Radio Towers — Spec. 4445—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract contructing two 300 ft. steel radio towers and one 200 ft. Guyed Tubular Mast, at Naval Radio Sta., here, to Hurley-Mason Co., 4 North Main St., Seattle, Wash., $22,220 (175 days). Noted June 9.

Miscellaneous

PROPOSED WORK

Park—Trenton, N. J.—City Comn. plans to build park in 11th Ward. About $25,000. G. W. Page, City Hall, dir. of Parks.

Swimming Pools—St. Paul, Minn.—City care of J. M. Clancy, comr. Parks, Playgrounds and Pub. Bldgs., plans to build 2 concrete swimming pools, each 75 x 160 ft., 4-7 ft. deep, in Como Park. About $30,000. F. Nussbaumer, St. Paul, supt. parks.

Stadium Bowl—Jamestown, N. D.—Jamestown College had survey made for 500 ft. stadium bowl, terraced seats of cement for athletic field, also tunnel system for heating mains. About $50,000. B. H. Krooze, pres.

Park Improvements — Mandan, N. D. — Park Bd. having plans prepared improving Chautauqua Park, including temporary dam. About $25,000. W. J. Seitz, city clk.

Garbage Reduction Plant—Tulsa, Okla.—City voted $50,000 bonds for garbage reduction plant; $30,000 of which will be used to remodel present plant and other $20,000 for additional equipment. L. E. Preston, city health supt.

Incinerator — Port Arthur, Tex. — See "Sewers."

Harbor Improvements — Port Lavaca, Tex.—City plans to improve harbor. About $125,000. Address Mayor.

BIDS DESIRED

Pavilion—Central Islip, N. Y.—Until July 20, by State Hospital Comn., Capitol, Albany, building open air pavilion, at Central Islip State Hospital, here. E. S. Elwood, secy. L. F. Pilcher, Capitol, Albany, state archt.; advertised in this issue.

Heating and Ventilating Apparatus, etc. —Morris Park (Jamaica P. O.), N. Y.—Until July 12, by R. W. Rodman, supt. Plant Operation of Bd. Educ., Municipal Bldg., New York City, installing (1) heating and ventilating apparatus, (2) temperature regulation apparatus, in P. S. 57, on Curtis Ave. south of Jerome Ave., here.

Pier and Platforms—New York, N. Y.—Until July 15, by M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., North River, building pier and platforms on outshore portion of Brooklyn Bridge Impvt., Boro. of Manhattan, Contr. 1694.

Crushed Rock Sand—Phila., Pa.—Until July 13, by M. Smith, purch. agt., 17th and Filbert Sts., furnishing 40,000 ton crushed rock sand. About $60,000.

Lumber and Granite Paving Blocks—New Orleans, La.—Until July 12, by Bd. Port Comrs., Court House Bldg., furnishing 400,000 ft. creosoted southern pine timber, also 45,000 granite paving blocks, 10-12 in. long, 4 in. wide, 5-6 in deep.

Paint—New Orleans, La.—Until July 12, by Bd. Port Comrs., furnishing paint. W. O. Hudson, pres.; advertised in this issue.

Lighting System—Champaign, Ill.—City receiving bids constructing lighting system on various streets. About $80,000. F. C. Lohman, Champaign, engr.

Street Cleaning Machines — West Allis, Wis.—Until July 16, by Bd. Pub. Wks. furnishing 1 street cleaning machine. A. Wichner, secy.

Steam Shovel, etc.—Calhoun, Mo.—Until July 15, by C. Neilson, furnishing steam shovel, pumps, water piping, track, coal cars and dumping engine. About $25,000.

Culverts—Gilmer, Tex.—Until July 11, by J. R. Melvin, judge Upshur Co. rebuilding concrete and steel drainage structures and constructnig new drainage structures of concrete and steel in Div. 3, on Highway 11, Federal Aid Project 152, involving 1,099.6 cu.yd. Class A and 24 cu.yd. Class B concrete, 39,755 lb. structural and 96,869 lb. reinforcing steel, 591 cu.yd. dry structural and 195 cu.yd. wet structural excav., cost $53,745; Divs. 1 and 2, State Highway 11, involving 7.06 cu.yd. Class A rein.-con., 3,525 lb. reinforcing steel, 254 sq.yd. riprap, 940 cu.yd. dry and 465 cu. yd. wet excav., etc., cost $27,904. H. S. Wilder, Mt. Pleasant, engr.

Docks—Quebec, Que.—Until July 17, by Secretary Dept. of Marine, Ottawa, Ont., completing Champlain Dock, here. About $136,000. A. Anderson, 82 Somerset St. W., Ottawa, engr.

Culverts—Ontario—Until July 21, by W. A. McLean, deputy minister of highways, Parliament Bldgs., Toronto, building concrete culverts on Provincial Highways in Biddulph, Downie, Blanchard, Plympton, Warwick and Sarna Twps., involving 4,500 cu.yd. excav., 2,100 cu.yd. rein.-con. About $50,000. Provincial Highway Dept. furnishes cement and steel. G. Hogarth, Parliament Bldgs., Toronto, engr.

Harbor Improvements—Port Arthur, Ont. —Until July 17, by Secretary Dept. of Marine, Ottawa, improving harbors here and at Ft. William. About $170,000. A. H. Anderson, 82 Somerset St. W., Ottawa, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Fill—West Springfield, Mass. (Springfield P. O.) — Connecticut Valley Realty Co., 387 Main St., Springfield, let contract constructing 100,000 cu.yd. earth fill, in connection with new Connecticut River Bridge, to Adams & Ruxton Constr. Co., 3rd Natl. Bank Bldg., Springfield. About $30,000.

★Broken Stone and Screenings — Long Island City, N. Y.—M. E. Connolly, pres. Queens Boro, let contract furnishing and delivering 23,000 cu.yd. broken stone and screenings, to Tuohy & Upton, 98 Main St., Flushing, $70,380. Noted June 30.

Asphalt Paving Cement—New York, N. Y. —H. H. Curran, pres., Manhattan Boro., Municipal Bldg., received bids June 27, furnishing and delivering 600 ton asphaltic paving cement, from Warner-Quinlan Co., 79 Wall St., $23.23 per ton $13,938; Standard Oil Co. of New York, 26 Bway., $23.98, $14,388; Texas Co., 17 Battery Pl., $28.44, $17,064. Noted June 23.

Bituminous Materials—New York, N. Y. —H. H. Curran, pres. Manhattan Boro., received bids June 27, furnishing and applyng 10,000 gal. bituminous material for cold application to surface on Riverside Dr. from 158th to Dyckman Sts., from Barrett Co., 17 Battery Pl., $1,450. Noted June 23.

Bulkhead Wall—New York, N. Y.—M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., North River, received bids June 30, building bulkhead wall at and near foot of Battery Pl., Contr. 1719, from Lustig & Weil, 103 Park Ave., $81,650; H. Steers, Inc., 17 Battery Pl., $81,837; G. W. Rogers & Co., 29 Bway., $90,960. Noted June 23.

Bituminous Material, etc.—St. George, S. I. N. Y.—C. D. Van Name, pres. Richmond Boro., received bids June 27, furnishing and delivering (1) 65,000 gal. bituminous material for road surfacing in tank cars at any railroad station, (2) 200 cu.yd. 1½ in. broken stone, 150 cu.yd. ¾ in broken stone and 100 cu.yd. screenings of limestone or dolomite in Dist. 1, (3) 300 cu.yd. 1½ in. broken stone, 100 cu.yd. ¾ in. broken stone and 100 cu.yd. screenings of limestone or dolomite in Dist. 2, (4) 500 cu.yd. 1½ in. broken stone and 150 cu.yd. screenings of limestone or dolomite in Dist 3, (5) 700 cu. yd. ¾ in. broken stone and 700 cu.yd. screenings of limestone or dolomite at asphalt plant of Bureau of Highways, (6) 275 cu.yd. grits in Dist. 2, (7) 200 cu.yd. grits in Dist. 2, (8) 250 cu.yd. grits in Dist. 3, (9) 275 tons Natural Lake asphalt at Asphalt Plant of Bureau of Highways; furnishing and applying (10) 7,000 gal. bituminous material, from:

F. J. Lewis Mfg. Co., (1) $6,935.

Barrett Co., 17 Battery Pl., New York City, (1) $7,275, (10) $1,120.

B. Turecamo Contg. Co., 8702 Bay 12th St., Brooklyn, (2) $1,595, (3) $1,795, (4) $3,022, (5) $4,466, (6) $1,180 (7) $2,220, (8) $1,312.

J. E. Donovan, 2205 Richmond Terrace, Port Richmond, (2) $1,875, (3) $1,875, (4) $2,800, (5) $4,900, (6) $935, (7) $1,750, (8) $900, (9) $40 per ton, total cost $11,000.

J. Johnson Sons, 455 Bway., West New Brighton, (2) $2,162, (3) $1,845, (4) $2,645, (5) $4,452, (6) $1,100, (7) $2,125, (8) $1,062, (9) $42 per ton, $11,550. Noted June 23.

★Lumber—New Orleans, La.—Bd. Port Comrs. let following contracts furnishing lumber for Desire St. wharf, 285,000 ft. untreated pine lumber, to Frerich Lumber Co., New Orleans, $7,983; 80,000 lin.ft. creosoted piling, 45-100 ft. long, to Creosoted Material Co., Queen and Crescent Bldg., $35,750; 630,000 ft. creosoted southern pine timber, to Hattiesburg Creosoted Lumber Co., Hattiesburg, Miss., $79,824.

★Unloader—New Orleans, La.—Bd. Port Comrs. let contracts building superstructure and furnishing machinery and equipment for marine leg unloader, involving 210 to 230 ton steel, to Crane & Co., South Michigan Ave., Chicago, $114,000; 66,000 lin.ft. creosoted piling for marine leg elevator, to Creosoted Materials Co., Queen and Crescent Bldg., $42,389. Noted Feb. 10 and May 19.

Plumbing, Heating and Ventilating Systems—Cleveland, O.—City received bids installing plumbing, heating and ventilating systems in new city hospital building (now under construction), from W. G. Cornell Co., Leader-News Bldg., $469,940; Warden & Leese, 2527 Prospect Ave., $489,000. Former bids rejected. Noted June 9.

★Mechanical and Electrical Equipment—Detroit, Mich.—Dept. Parks & Blvds., 602 Marquette Bldg., let contract furnishing and installing mechanical and electrical equipment for Scott Memorial Fountain on Belle Isle, including electrically operated pumps, piping, special work and lighting equipment, to Pittlekow Heating & Eng. Co., 312 West Larned St., $75,785. Noted March 31.

Memorial Fountain — Detroit, Mich. — Parks & Blvds. Dept., 602 Marquette Bldg., received bids building fountain, marble bowl, cascades, etc. (earth fill not included) for Scott Memorial Fountain on Belle Isle, from J. Bollin Co., 1259 Book Bldg., $343,000; G. A. Fuller Co., 540 Penobscot Bldg., $350,500. Noted March 31.

Sewer Brick—Detroit, Mich.—Dept. Pub. Wks. received bids furnishing 1,000,000 hard burned sewer brick, from P. Koenig Coal Co., 1458 Gratiot Ave., $16.25 per M; Superior Sand & Gravel Co., 926 Dime Bank Bldg., $16.50; United Fuel & Supply Co., Free Press Bldg., $17.64.

Steel Track Specials — Detroit, Mich. — Street Ry. Comn., Murphy Bldg., received bids furnishing steel double track specials, from Lorain Steel Co., Lorain, O., $34,528; Buda Co., 80 East Jackson St., Chicago, $36,070; W. Wharton, Jr., Easton, Pa., $37,474.

★Coal Hoppers — Milwaukee, Wis. — Milwaukee-Western Fuel Co., 120 Wisconsin St., let contract building timber coal hoppers, concrete foundations, on 13th and Canal Sts., to F. Luenzmann Co., 31st St. and Auer Ave. About $40,000.

Swimming Pool—Camp Dodge, Ia. (Herrold P. O.)—Pearse, Robinson & Sprague, engrs., 261 Arts Bldg., Des Moines, received bids June 27, building 10 x 150 x 350 ft. rein.-con. swimming pool, here, for State Military Comn., Capitol, Des Moines, from Stark & Knotts, 204 5th St., Des Moines, $33,105; Western Constr. Co., Waterloo, $33,546; Des Moines Eng. & Constr. Co., 407 Polk Bldg., Des Moines, $33,624. Work involves 12,100 cu.yd. earth excav., 467 cu.yd. rein.-con., 57,000 sq.ft. paving for water proofing tank inside, 5,000 sq.ft. of sidewalk around tank, 43-ton steel, 200 lin.ft. 15 in. tile and 200 ft. 12 in. steel pipe. Noted June 23.

★Foundation—Minneapolis, Minn.—Federal Reserve Bank, 9th Dist., let contract building foundation for 8 story, 155 x 165 ft. rein.-con., brick, tile and stone, at 71-75 5th St., to Pike & Cook, 416 South 5th St. About $275,000. Superstructure will not be built until 1922. Noted June 9.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
July 19	Wingham, Ont.	July 7
July 19	Redfield, S. D.	July 14
July 20	New York, N. Y.	July 14
July 21	Montreal, Que.	July 14
July 22	Akron, O.	July 14
July 25	Marysville, Wash	June 23
	Adv. July 7 and 14.	
July 25	Los Angeles, Cal.	July 14
July 25	Burlington, Col.	July 14
July 26	Bombay, India	Apr. 28
July 28	Maple Heights (Bedford P. O.), O.	July 14

SEWERS

Bids Close		See Eng. News-Record
July 16	West Park, O.	July 14
July 19	Columbus, O.	July 7
July 19	Elmhurst, Ill.	July 14
July 19	Central City, Ia.	July 14
July 19	Mexico, Mo.	July 14
July 19	Fort Scott, Ka.	July 14
July 20	Reading, Pa.	July 7
	Adv. July 7 and 14.	
July 21	London, Ont.	July 14
July 22	Garfield Heights (Cleveland P. O.), O.	July 14
July 23	Westmont, Que.	July 14
July 25	Niagara Falls, Ont.	July 14
July 27	Kilburn, Wis.	July 14
Aug. 2	Paterson, N. J.	July 14

BRIDGES

Bids Close		See Eng. News-Record
July 16	Manchester, N. H.	June 30
	Adv. June 30 to July 14.	
July 19	Groton, Conn.	July 7
July 19	Illinois	July 14
July 19	Elberton, Ga.	July 14
July 19	Pittsburgh, Pa.	July 14
July 19	Audubon, Ia.	July 14
July 20	Martha, W. Va.	July 7
July 22	Duluth, Minn.	July 7
July 22	Ohio	July 7
July 25	Wheeler, Tex.	July 14
	Adv. July 7 and 14.	
July 25	El Monte, Cal.	July 14
July 26	Chattahoochee, Fla.	July 14
July 26	Atlantic, Ia.	July 14
July 27	Shrewsbury, N. J.	July 14
	Adv. July 14.	
July 27	New Jersey	July 14
	Adv. July 14.	
July 27	Greenfield, Ia.	July 14
July 28	Newport, N. Y.	July 14
	Adv. July 14.	
Sept. 7	Kingman, Kan.	June 30

STREETS AND ROADS

Bids Close		See Eng. News-Record
July 14	Closter, N. J.	July 7
	Adv. July 7 and 14.	
July 16	West Park, O.	July 14
July 18	California	July 7
July 18	New Florence, Pa.	July 7
	Adv. July 7 and 14.	
July 18	Nevada, Mo	July 7
July 18	Nova Scotia	July 7
July 18	Halifax, N. S.	July 7
July 18	Marshalltown, Ia.	July 14
July 18	St. Paul, Minn.	July 14
July 19	Adrian, Mich.	June 30
July 19	Columbus, O.	July 7
July 19	Montana	July 7
July 19	North Carolina	July 7
July 19	Monett, Mo.	July 14
July 19	Illinois	July 14
July 19	Kankakee, Ill.	July 14
July 19	Hopkins, Mo.	July 14
July 19	Elberton, Ga.	July 14
July 19	Freehold, N. J.	July 14
	Adv. July 7 and 14.	
July 19	Centralia, Ill.	July 14
July 19	Maryland	July 14
	Adv. July 7 and 14.	
July 19	Peoria, Ill.	July 14
July 19	Grand Rapids, Mich.	July 14
July 19	Dakota, Ia.	July 14
July 19	Pittsburgh, Pa.	July 14
July 20	Boone, Ia.	June 30
July 20	Pipestone, Minn.	July 7
July 20	Jackson, Minn.	July 7
July 20	Delaware	July 7
	Adv. July 7 and 14.	
July 20	Minnesota	July 7
July 20	San Augustine, Tex.	July 7
July 20	North Carolina	July 14
July 20	Long Island City, N. Y.	July 14
July 20	San Augustine, Tex.	July 14
July 21	Minnesota	July 7
July 21	New York, N. Y.	July 14
July 21	Caldwell, O.	July 14
July 21	North Carolina	July 14
July 22	Duluth, Minn.	June 23
July 22	Elkins, W. Va.	July 7
July 22	Duluth, Minn.	July 7
July 22	Ohio	July 7
July 22	Weston, Ont.	July 14
July 22	Kirkland Lake, Ont.	July 14
	Adv. July 7 and 14	
July 22	Ohio	July 14
July 22	Garfield Heights (Cleveland P. O.), O.	July 14
July 22	Virginia	July 14
July 25	Salem, N. J.	July 7
	Adv. July 7 and 14.	
July 25	Marshalltown, Ia.	July 14
	Adv. July 14.	
July 25	Akron, O.	July 14
July 26	Alabama	June 23
July 26	Alabama	July 7
July 26	Massachusetts	July 14
July 26	St. Louis, Mo.	July 14
July 26	Atlantic, Ia.	July 14
July 26	Orangeburg, S. C.	July 14
July 27	Fulton, N. Y.	July 14
	Adv. July 14.	
July 27	Greenfield, Ia.	July 14
July 28	Sewaren, N. J.	July 14
	Adv. July 14.	
July 28	New Brunswick, N. J.	July 14
	Adv. July 14.	
July 28	Camden, S. C.	July 14
July 29	Beaver Dam, Wis.	July 14
July 29	Mt. Holly, N. J.	July 14
Aug. 1	Highland, Ill.	June 30
Aug. 1	Hastings, Minn.	July 14
Aug. 2	Alabama	July 7
Aug. 3	Maniwaki, Que.	July 14
Aug. 4	Wichita, Kan.	July 7
Aug. 9	Syracuse, Kan.	July 7

RAILWAYS

Bids Close		See Eng. News-Record
July 30	Minnesota	July 14

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
July 19	Garrett, Ill.	July 14
July 22	Aitkin, Minn.	July 14
July 25	Welland, Ont.	July 7
July 25	Phillips, Wis.	July 14
July 26	Cleveland, Miss.	July 14
July 27	Wisconsin Rapids, Wis.	July 7
Aug. 10	Ottumwa, Ia.	July 7

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
July 18	North Hackensack, N. J.	July 7
	Adv. July 7 and 14.	
July 19	Hartford, Conn.	July 14
July 20	Delaware	July 7

BUILDINGS

Bids Close		See Eng. News-Record
July 16	Jersey City, N. J	July 14
July 18	Hartford, Conn.	June 23
July 18	Duluth, Minn.	June 30
July 18	Hamilton, Ont.	July 7
July 18	Saulte Ste Marie, Ont.	July 7
July 18	Paoli, Ind.	July 14
July 18	Portsmouth, Va.	July 14
	Adv. July 7 and 14.	
July 18	Milwaukee, Wis.	July 14
July 19	Mansfield, O.	June 30
July 19	Barnum, Ia.	June 30
July 19	Toulan, Ill.	July 14
July 19	Kansas City, Mo.	July 14
July 19	Joliet, Ill.	July 14
July 19	Topeka, Kan.	July 14
July 20	Fayetteville, N. C.	June 23
July 20	Sioux City, Ia.	June 30
July 20	Allendale, S. C.	July 7
July 20	Faribault, Minn.	July 14
July 21	Bay Village, O.	July 7
July 21	Westborough, Mass.	July 14
July 21	Ottawa, Ont.	July 14
July 22	Baddock, Pa.	June 23
July 22	Harrisburg, Pa.	July 14
July 22	Cleveland, O.	July 14

Bids Close		See Eng. News-Record
July 24	St. Louis, Mo.	July 14
July 25	Shorewood (Milwaukee P. O.), Wis.	July 14
July 26	Winnipeg, Man.	July 7
July 26	Virginia, Minn.	July 14
July 26	Uniontown, Pa.	July 14
July 28	Fairview, O.	July 14
July 28	Omaha, Neb.	July 14
Aug. 1	Superior, Wis.	June 30
Aug. 1	Walkerton, Ont.	July 14
Aug. 2	Harrisburg, Pa. Adv. July 7 and 14.	July 7
Aug. 3	Middleton, N Y Adv. July 14.	July 14
Aug. 8	Magee, Miss.	July 14
Aug. 9	Ironwood, Mich.	July 14
Aug. 11	Asheville, O.	July 14

FEDERAL GOVERNMENT WORK

July 15	Dredging—Baltimore, Md. Adv. June 16, 23, July 7 and 14.	June 23
July 17	Portland Cement — Wash., D. C.	July 14
July 20	Fire Alarm System—New York, N. Y.	July 7
July 20	Dredging—San Francisco, Cal.	July 7
July 20	Dredge Pumps—Galveston, Tex.	July 14
July 22	Dredging — Providence, R. I. Adv. July 7 and 14.	July 7
July 22	Towboat — Vicksburg, Miss. Adv. June 30 to July 14.	July 7
July 22	Repairs to Mechanical Equipment—Wash., D. C.	July 14
July 25	Submerged Riprap Spurs—Galveston, Tex. Adv. June 30 and July 14.	July 14
July 25	Lock Valves — Pittsburgh, Pa. Adv. June 30 to July 14.	July 7
July 27	Sprinkler System—San Diego, Cal.	July 7
July 27	Double Houses—Wheeling, W. Va. Adv. June 30 to July 14.	July 7
July 27	Power Plant Impvts.—Iona Island, N. Y.	July 14
July 27	Storage Buildings—Quantico, Va.	July 14
July 29	Dredging — New York, N Y. Adv. July 7 and 14.	July 7
Aug. 1	Removing Boulder—Providence, R. I. Adv. July 7 and 14.	July 7

MISCELLANEOUS

July 13	Breakwater — Milwaukee, Wis.	July 14
July 18	Sluice Gates—Los Angeles, Cal.	July 14
July 19	Gasoline, etc.—New York, N. Y.	July 14
July 20	Pavilion — Central Islip, N. Y. Adv. July 7 and 14.	July 7
July 20	Asphalt Road Oil, etc. — Brooklyn, N. Y.	July 14
July 20	Paving Gravel—New York, N. Y.	July 14
July 21	Culvert, Ontario	July 7
July 25	Lighting Conduits—Detroit, Mich.	July 14
July 26	Timber Grillage, Training Pier, etc.—Poupore, Que.	July 14
July 30	Pumps—London, Ont.	June 23
Aug. 1	Pier—Phila., Pa. Adv. July 14.	July 14
Aug. 14	Victoria, Australia	June 2

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Wis., River Falls—City, c/o G. Smith, mayor, having plans prepared building new water works system, including filtration plant, pumps and mains. About $20,000. J. H. A. Brahtz, 409 Metropolitan Opera House Bldg., St. Paul, Minn., engr.

Mo., Skidmore—City having plans prepared for reservoir, pumping station and 6-8 in. water mains. About $25,000. E. T. Archer & Co., New England Bldg., Kansas City engrs.

Mo., Wellsville—City plans to lay new water mains and install pumping station. About $40,000. A. Heckart, mayor. Engineer not selected.

Okla., Craig—City having plans prepared for waterworks addition and new 6 and 8 in. mains. Election July 17 to vote on $27,000 bonds for project. E. T. Archer, New England Bldg., Kansas City, Mo., engr.

Okla., Picker—City plans to improve waterworks system, lay new mains and install air lift pump. About $25,000. Engineer not selected.

Okla., Sayre—City voted $68,500 bonds to improve water works system and electric power plant. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs. Noted June 9.

Ont., Kingsville—Town receives bids end of July extending water mains, involving 2,500 ft. 8 in. c. i. pipe. About $15,000. R. W. Code, 14 London St. W., Windsor, engr.

Ont., Tilbury—Town plans to install four 2 stage centrifugal pumps, gasoline driven, 300 Imp. gal. per minute capacity and possibly one 800 Imp. gal. electric pump, all for 80 to 100 lb. fire pressure. About $30,000.

BIDS DESIRED

N. Y., New York—Until July 20, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., furnishing, delivering and laying water mains and appurtenances in 1st Ave., Dyckman, East 117th, West and Marginal Sts., Manhattan, also Haight, Pierce and Van Nest Aves. and East 138th and Adams Sts., Bronx.

O., Akron—Until July 22, by E. A. Zeisloft, dir. Pub. Serv., Delaware Bldg., constructing 3 mi. of 48 in. pipe line together with appurtenances between Cuyahoga River Crossing south of Kent and Tallmadge Center, Constr. 207. Former bids rejected. G. G. Dixon, 102 East Mill St., engr. Noted June 30.

O., Garfield Heights (Cleveland, P. O.)—See "Sewers."

O., Maple Heights (Bedford P. O.)—Until July 28, by village, laying 32,000 ft. 4-10 in. c.i. water mains in various streets. About 50,000. C. W. Courtney, Leader-News Bldg., Cleveland, engr.

O., West Park—See "Sewers."

S. D., Redfield—Until July 19, by city, building tower, pumping station and centrifugal pumps for new waterworks. About $160,000. Cory & Le Cocq, Aberdeen, engrs. Noted June 9.

Col., Burlington—Until July 25, by city, furnishing and installing deep well pumping equipment. About $13,000. J. M. Hefner, clk. Prince-Nixon Eng. Co., Peters Trust Bldg., Omaha, Neb., engr.

Cal., Los Angeles—Until July 25, by Bd. Supervs. Los Angeles Co. constructing rein.-con. dam in Live Oak Canyon, 3 mi. northcast of La Verne, involving 420 ft. 2 in. c.i. pipe, 6,000 ft. rein.-con. and 2,000 cu.yd. rock excav. Address Flood Control Dist., Hall of Records.

Que., Montreal—Until July 21, by Administrative Comn., furnishing and laying 24 in. water mains from low level pumping station to Verdun. About $90,000. A. E. Doucet, dir. Pub. Wks.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★O., Columbus—W. H. Duffy, dir. Pub. Serv., let contract extending waterworks system, consisting of 8 rapid sand filters having total capacity of 24,000,000,000 gal. daily, also addition to filtered reservoir of about 6,000,000 gal. capacity, etc., to Pitt Constr. Co., Fulton Bldg., Pittsburgh, $362,947. Noted July 7.

O., Willoughby—Village received bids building 6,800 ft. 12 in. c.i. pipe and 106 x 175 ft. concrete equalizing basin, 2,000,000 gal. capacity, from Gangl Constr. Co., 737 2nd Natl. Bldg., Akron, $96,747; Lane & Freeman, Newman Stern Bldg., Cleveland, $107,301; A. S. Hecker Co., Union Ave., Cleveland, $113,093.

★Kan., Arkansas City—City let contract to Smith-Graham Constr. Co., Augusta, extending waterworks system, involving 1,170 lin.ft. 2 in. galvanized w.i. pipe $.40, 30,314 lin.ft. 4 in. c.i. pipe, $0.90, 5,790 lin.ft. 6 in. $1.15, 1,210 lin.ft. 8 in. $1.70, etc., total cost $41,500. Noted June 16

★Kan., Greenleaf—City let contract improving waterworks system and laying new 4-6 in. mains, to Hybskmann & Wiley, Seneca. About $25,000. Noted April 21.

★Neb., Rulo—City let contract for waterworks machinery, to Merkle Mchy. Co., 508 Interstate St., Kansas City, Mo., $21,995.

★Mo., Brookfield—City let contract building new water supply system, to Ray & Son, Baxter Springs, Kan., $98,376. Noted June 16.

Sewers

PROPOSED WORK

Conn., Wethersfield—City having preliminary plans prepared for sewerage system. About $200,000. Buck & Sheldon Inc., 60 Prospect St., Hartford, engrs.

Pa., Phila.—City soon receives bids building 50,086 ft. brick sewers in York Rd. from Chamlost to Spencer Sts., York Rd. from Spencer to Godfrey Sts., York Rd. from Oak Lane to Chester St., 12th St. from Grange to Nedro Sts., 12th St. from Master to Jefferson Sts., 70th St. from Upland to Kingessing Sts., 70th St. from Elmwood to Buist Sts., 3rd St. from Chew to Grange Sts., 3rd St. from Wyoming Ave. to Roosevelt Blvd., 3rd St. across Oregon Ave., Tioga St. from Cedar to Gual Sts., Tioga St. from Armington to Cedar Sts., 66th St. from Limekiln to 21st Sts., 66th St. from Wister to 21st Sts., 66th St. from Elmwood to Buist Sts., Snyder Ave. from 25th to 28th Sts., Snyder Ave. from 23rd to 24th Sts., Ruscomb Ave. from front to Rising Sun Aves., Ruscomb Ave. from 18th to 19th Sts., Roosevelt Blvd. from 7th St. to North Penn Pike, Roosevelt Blvd. from Rising Sun to Front Sts., Oxford St. from Wakeling to Dyre Sts., Oxford St. from 59th to 60th Sts., Oxford St. from 57th to 59th Sts., Atlantic St. from 71st St. to point 157 ft. west, Atlantic St. from F to G Sts., Cedar Pike, Castor Rd., and St. Bernards, Adams, Vine, Shawnee, Sparks, Reese, Ramona, Porter, Osborne, Large, K, Haworth, Earnest Dyre, Fox, Day, Brill, Basil, Abigale, Rockland, A, Wyncote, Westmoreland, 28th, 21st, 13th, 74th, 72nd, 65th, 17th, 16th, 2nd, 67th, Upland, Haines, 50th, F, Cayuga, August and 54th Sts., Olney, Oregon, Paschall, Moyamensing, Lebanon, Hartwell, Grange, Chester and Abington Aves. F. Caven, City Hall, engr.

Wis., Bloomington—Village having preliminary plans prepared for new sewerage system and septic tank. W. G. Kirchoffer, Vroman Blk., Madison, engr.

Mo., Plattsburgh—City having plans prepared for 2 disposal plants and pipe line. About $50,000. E. T. Archer Co., New England Bldg., Kansas City, engrs.

Mo., Plattsburg—City having plans prepared laying 10-12 in. vitr. tile sewers in various streets. About $50,000. E. T. Archer, New England Bldg., Kansas City, engr.

Ont., London—City had plans prepared building 16,000 ft. vitr. tile storm sewers in Pine Lawn. About $170,000. Bids will be received about July 21 for portion of above work, $100,000. H. A. Brazier, city engr. Noted May 5.

BIDS DESIRED

N. J., Paterson—Until Aug. 2, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, constructing part of Sect. 23, Warren St. Branch Sewer, consisting of Warren St. River-Crossing, here, involving earth excav. and refilling, in trench and open excavations, for 18 in. c.i. pipe line crossing Passaic River, laying 18 in. c.i. pipe line across Passaic River, including

Sewers (Continued)

furnishing of joint materials, making, testing and tightening pipe joints, etc. (commissioners to furnish c.i. pipe); 200 long ton riprap in place and 30 cu.yd. concrete masonry, etc. J. R. Van Duyne, ch. engr.

O., Garfield Heights (Cleveland P. O.)—Until July 22, by city, laying 2,400 ft. 8 in. c. i. sewers and water mains in various streets. About $25,000. R. Hecker, 905 Leader-News Bldg., Cleveland, engr.

O., West Park—Until July 16, by city, building sewers in Munn and Fairwood Rds., West 127th St., Belmont, Williams, Rockport and Herman Aves.; watermains in Sprecher, Carrington, Matherson, Clovercale, Leeila and Waynefleet Aves. About $75,000. J. Reitz, West Park, engr.

Ill., Elmhurst—Until July 19, by city, constructing 2,790 ft. 15 in. vitr. tile sewers in various streets. About $40,000. F. M. Neumann, clk. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Rock Island—City receiving bids constructing 8 in. vitr. tile sewers in 9th St. About $25,000. H. M. Schriver, mayor. Private plans.

Wis., Kilbourn—Until July 27, by W. Luettgerodt, village clk., building 2½ x 6 ft. sewer tunnel, 1840 ft. long. W. G. Kirchoffer, Vroman Blk., Madison, engr.

Ia., Central City—Until July 19, by R. D. Minehart, city clk., building 150 ft. 12 in. c.i. pipe, 3,300 ft. 8 in. and 4,300 ft. 12 in. vitr. tile sewers in various streets. H. R. Green, 107 North 2nd St., Cedar Rapids, engr.

Kan., Ft. Scott—Until July 19, by city, building sewers in various streets, involving 8-12 in. pipe, 7,000 cu.yd. excav., 66 manholes. About $45,000. Private plans.

Mo., Mexico—Until July 19, by city, building sewage disposal plant and outfall sewers. About $70,000. Private plans.

Que., Westmount—Until July 23, by secy. treas. building 12 in. vitr. clay pipe sewer in Lansdown Ave. and 18 in. in Belmont Ave. About $25,000. P. E. Jarman, City Hall, engr.

Ont., London—Until July 21, by S. Baker, city clk., building 1,000 ft. 20 in. c.i. sewage force main, 260 ft. of which will be laid under Thames River. About $25,000. H. A. Brazier, city engr.

Ont., Niagara Falls—Until July 25, by W. J. Seymour, city clk., building 7,500 ft. of 6-8 ft. concrete or radial brick trunk sewer in Muddy Run. About $250,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs. Noted June 9.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, let contract repairing sewer in 60th St. between 15th and 19th Aves., to J. S. Cogan Co., 233 Bway., New York City, $208,850. Noted June 30.

Pa., Phila.—City received bids building sewers in (1) 51st St. from Grays Ferry Ave. to Schuylkill River, (a) 6 ft. 6 in. concrete on earth, (b) 6 ft. 6 in. sewer on piles, (c) yellow pine piles in place, (d) additional concrete below sewer depth, (2) Ognotz Ave. from Washington Lane to 79th Ave. N., (a) 5 ft. 6 in. concrete sewer in reduced cradle, (b) 5 ft. 6 in. concrete sewer in hard rock, (c) 4 ft. concrete sewer, (d) 3 ft. diameter sewer with stone block invert, (e) junction chamber complete, (3) Ognotz Ave. from 72nd Ave. E., to Washington Lane, 6 ft. concrete sewer including all appurtenances, (4) Ognotz Ave. from Andrews to 72nd Ave. N., (a) 6 ft. 6 in. concrete sewer, (b) 6 ft. concrete sewer, (5) Ognotz Ave. from 67th Ave. E. to Andrews Ave., 6 ft. 6 in. concrete sewer including all appurtenances, from R. Lombardi, Lincoln Bldg., (1a) $48.60, (1b) $59.57, (1c) $27.60, (1d) $5, (5) $72.23; A. Shofoley, Phila., (1a) $56.50, (1b) $51.03, (1c) $15.40, (1d) $15, (3) $48.26, (4a) $42.15, (4b) 42.15, (5) $48.64; A. A. Pastore, Woodland Ave., (1a) $56.46, (1b) $51.03, (1c) $15.40, (1d) $15; P. Ellis, 334 North 11th St., (2a) $31.65, (2b) $34.85, (2c) $27.15, (2d) $21.65, (2e) 997; D. MacMahon, Phila., (2a) $36, (2b) $37.50, (2c) $26, (2d) $22.50, (2e) $1,150, (3) $59.50; O'Neill Co., Weightman Bldg., (2a) $35, (2b) $35, (2c) $27, (2d) $23, (2e) $1,600; L. Mark, 7th St. and North East Blvd., (3) $49, (4a) $42, (4b) $43; F. T. Buckius, Jr., Kensington and Deal Sts., (4a) $65, (4b) $63.50; L. Haines, Phila., (5) $49.

Pa., Sayre—Boro received bids building sewers, involving (a) 1,936 ft. 8 in. vitr. sewer in Bradford St., (b) 120 ft. 8 in. c.i. sewer in Bradford St., (c) 492 ft. 8 in. sewer in Draper St., (d) 664 ft. 10 in. vitr. sewer in Spring St., (e) 957 ft. 8 in. vitr. sewer in Hoover St., (f) 169 ft. 10 in. vitr. sewer in Spring St. (R.R.), (g) 180 ft. 10 in. c.i. sewer in Spring St., (h) 609 ft. 10 in. vitr. sewer in Lehigh Ave., (i) 426 ft. 10 in. vitr. sewer in Seneca St., (j) 1,221 ft. 8 in. vitr. sewer in Maple St., (k) 1,953 ft. 8 in. vitr. sewer in Wilbur Ave., from Connors-McGreevy, Elmira, (a) $1.93 per ft., (b) $8, (c) $1.58, (d) $2.84, (e) $1.90, (f) $2.84, (g) $9, (h) $1.80, (i) $1.40, (j) $1.80, (k) $1.60; Meadow-McCarthy Co., Harrisburg, (a) $2, (b) $2.50 (c) $1.90, (d) $3, (e) $2, (f) $3, (g) $2.75, (h) $2.75, (i) $1.65, (j) $2, (k) $1.90; E. W. Walsh, Elmira, (a) $1.44, (b) $4.50, (c) $1.29, (d) $2.76, (e) $1.44, (f) $2.55, (g) $5.50, (h) $1.333, (i) $1.24, (j) $1.59, (k) $1.35. Noted June 23.

★O., Cleveland—City let contracts building 4,880 ft. 3-7 ft. brick sewer in Central Ave. from East 14th to East 55th Sts., Sect. 1, to Gallagher-Burke Co., 1339 Irene Ave., $47,630, Sect. 2, to S. Amato, 343 The Arcade, $35,541. Noted July 7.

O., West Park—Ford Realty & Constr. Co., Cadillac Bldg., Cleveland, received bids laying 28,450 ft. 12-30 in. vitr. tile sewers, etc., in 18 streets, here from N. Iafornaro, 3218 Murray Hill Rd., Cleveland, $117,274; A. Marra, Ullmer Bldg., Cleveland, $124,647.

Mich., Detroit—City received bids building lateral sewers (1) 3457, (2) 3458, (3) 3465, (4) $3466, (5) 3470, (6) 3471, (7) 3473, (8) 3475, (9) 3483, (10) 3485, (11) 3486, (12) 3487, (13) 3488, (14) 3493, from Liberty Constr. Co., 917 Chamber of Commerce Bldg., (1) $8,900; Western Constr. Co., 1208 Ford Bldg., (1) $8,969, (5) $21,890, (6) $29,589, (7) $10,200, (8) $5,200, (9) $15,500, (12) $7,765, (14) $23,349; Langley & Barton, 3714 Lincoln Ave., (1) $9,000, (6) $30,000; Detroit Drainage Constr. Co., Penobscot Bldg., (2) $14,200, (3) $8,400, (4) $6,600, (10) $10,000, (11) $8,700; J. Zuccolo, 400 Penobscot Bldg., (2) $12,932, (3) $8,542, (10) $9,157, (11) $8,757; A. Arcari, 400 Penobscot Bldg., (2) $12,746, (10) $8,427, (11) $8,063; L. Kevorkian, Detroit, (3) $6,402, (4) $6,191, (9) $13,732; H. Fortuna, 4422 St. Aubin Ave., (4) $5,400; R. D. Baker, 1631 Elmhurst Ave., (5) $23,000, (6) $30,000, (7) $9 590, (8) $4,500, (9) $14,000, (12) $7,000, (14) $24,592; Oakwood Constr. Co., 165 Fort Blvd., (5) $21,000, (6) $30,000, (7) $10,000, (13) $8,000; Detroit Contg. Co., 827 Ford Bldg., (8) $5,184, (12) $7,956, (13) $7 552, (14) $25,865; V. Teetaert, 5230 Notre Dome St., (13) $9,827.

★Ill., Aurora—City let contract constructing system in Northeast Sewer Dist., involving 7½ mi. 8-36 in. tile pipe, 3,180 ft. 42 in. concrete, 1,600 ft. 48 in. segmental block, etc., to E. R. Harding Co., 400 Robinson Bldg., Racine, Wis. About $200,000.

★Ill., Rock Island—City let contract constructing 8 in. vitr. tile sewers in 17th and 25th Sts.; to P. F. Trenkenschak, 1535 14½ st. About $25,000.

★Minn., Duluth—City let contract constructing sanitary outlet sewers in Zimmerly, Hulett, Clyde, Zagebic, 93rd, 92nd and 88th Aves., involving 8 583 ft. 6-24 in. vitr. pipe, to C. R. McLean, 307 1st Natl. Bank Bldg., $30,377. Noted June 30.

★Kan., Arkansas City—City let contract to C. H. Everett, Hutchinson, building sanitary sewers in Dist. 6, involving 35,374 lin.ft. 8 in. vitr. pipe $1.20, 4,446 lin.ft. 19 in. $1.35, 2,268 lin.ft. 12 in. $2.60, 1,720 lin.ft. 15 in. $2.90, 365 lin.ft. 21 in. $4.25, 3,010 lin.ft. 24 in. $5.25, 1,331 lin.ft. 30 in. $10, 295 lin.ft. 8 in. Class A c.i. pipe, $4, etc., total $111,445. Noted June 16.

★Cal., Los Angeles—City let contract constructing sewer in Indiana St. Sewer Dist., involving 2,967 ft. 18-21 in. rein.-con. pipe, 6,109 ft. 18 in. standard pipe, etc., to Dalmatin & Tuho, 818 East 40th St., $70,215.

★Ont., Bowmanville — See "Streets & Roads."

★Ont., St. Catharines—City let contract building 9,200 ft. concrete and tile storm sewers, to P. Mohan, 36 Belgrave Pl., London, and Mitchell Contg. Co., London. Noted June 2.

★Ont., Sandwich—See "Streets & Roads."

Bridges

PROPOSED WORK

Ala., Scottsboro—Jackson Co. had plans prepared by State Highway Dept., Montgomery, for 133 ft. steel span over Hill Mill Creek, total length 200 ft., 12 ft. roadway. L. G. Smith, Montgomery, bridge engr.

Fla., White Springs — State Highway Comn., Tallahassee, rejected bids opened June 10, building Gully Bridge, here. Bridge to be re-designed. C. A. Browne, state highway engr. Noted June 16.

Illinois—Until July 19, by Dept. Pub. Wks. and Building, Div. Highways, Springfield, constructing 2 concrete bridges Sect. 55-B, Route 3, Greene Co.; 4 concrete bridges Sect. 22-B, 3 bridges Sect. 22-B and 7 bridges Sect. 23-B, all concrete Route 5, Stephenson Co.; 1 concrete bridge, Combination J, Route 5, Tazewell Co.; 1 steel superstructure, Sect. 27-B, 1 steel superstructure, Sect. 27-C and 1 steel bridge, Combination K, all Route 10, Sangamon Co.; 6 bridges, Sect. 6-B and 2 bridges Sect. 7-B, both concrete, Route 13, Williamson Co.; 1 steel substructure, Sect. 8-B, 1 steel superstructure, Sect. 8-C and 1 steel bridge, Combination M, all Route 13, Saline Co.; 9 concrete bridges, Combination L, Route 13, Williamson-Saline Co.; 1 steel bridge, Sect. 13-B, Route 18, Kendall Co.; 2 concrete bridges, Sect. S, 7 concrete bridges, Sect. T and 1 steel bridge, Sect. U, all Macoupin Co.; 1 concrete bridge, Sect. F, Adams Co. C. Older, ch. highway engr.

Kan., Garden City — Finney Co. had plans prepared for Pierceville Bridge, 180 ft. long, to have six 30 ft. spans, involving 43.5 cu.yd. rein.-con., 72,924 ton structural steel and 9,852 ft. lumber; Holcomb Bridge, 60 ft. long, to have two 30 ft. spans, 14.5 cu.yd. rein.-con., 24,308 lb. structural steel and 3,284 ft. lumber. B. L. Allen, Garden City, engr.

Missouri—State Highway Dept., Jefferson City, plans to build pony truss superstructure over Shoal Creek at Sta. 1780 plus 64 on Granby-Monett State Rd., Federal Aid Project 155, Newton Co., involving 167.3 cu.yd. Class A, 134.1 cu.yd. Class B and 75.6 cu.yd. Class C concrete, 27,390 lb. reinforcing and 78,850 lb. fabricated structural steel, etc. About $25,300. A. Graham, state highway engr.

Missouri—State Highway Dept., Jefferson City, plans to build two 150 ft. steel truss and two 60 ft. pony truss approach spans, over Platte River, at Sta. 629 plus 56 on state road from Dearborn to Platte City, involving 210.1 cu.yd. Class B and 207.1 cu.yd. Class C concrete, 194,600 lb. fabricated structural and 6,390 lb. reinforcing steel, etc. About $63,044. A. Graham, state highway engr.

Mo., Paris—Comrs. Monroe Co. plans to build steel truss span, concrete abutments, over Long Branch. About $25,000. Engineer not selected.

Mo., Poplar Bluff—City having plans prepared building steel span bridge, concrete abutments. About $25,000. E. C. Nickey, Poplar Bluff, engr.

Cal., San Bernardino—City having plans prepared for rein.-con. bridge, to have two 71 ft. spans, over Lytle Creek on Mt. Vernon Ave. About $25,000. C. E. Johnson, City Hall, engr.

Que., Montreal—City plans to build bridge over Canadian Pacific R.R. tracks on Sherbrooke St., E. About $250,000. E. Blanchard, city engr.

Ont., London—Dept. Provincial Highways, Parliament Bldgs., Toronto, had plans prepared for 210 ft. ornamental steel bridge over Holmes River. About $40,000. G. Hogarth, Parliament Bldgs., Toronto, engr.

BIDS DESIRED

N. Y., Newport—Until July 28, by M. J. Folnsbee, supt. highways, Newport, building 2 span, open spandrel, concrete arch bridge, over West Canada Creek, ½ mi. south of Poland. E. J. Boyle, 95 State St., Capitol, Albany, consult. engr.; advertised in this issue.

New Jersey—Until July 27, by State Highway Dept., Broad St. Bank Bldg., Trenton, building bridges and culverts, on Route 12, Sect. 1, beginning at Pine Brook and ending at Parsippany, Morris Co., in municipalities of Montville and Hanover. C. A. Mead, 790 Broad St., Newark, bridge engr.; advertised in this issue.

N. J., Shrewsbury—Until July 27, by State Highway Dept., Broad St. Bank Bldg., Trenton, building Bridge 57, M. P. 87.6 on Route 4, Sect. 5, Mammoth Co. C. A. Mead, 790 Broad St., Newark, bridge engr; advertised in this issue.

Pa., Pittsburgh—Until July 19, by city, building parapet, roadway slabs and concrete protection for 275 ft. bridge over Pennsylvania R.R. tracks, on Centre Ave. About $35,000.

Bridges (Continued)

Fla., Chattahoochee—Until July 26, by State Rd. Dept., Tallahassee, building approach spans to Apalachicola River Bridge (now under construciton), on State Rd. 1, near here. Bids will be considered on creosoted timber trestle approach spans on both ends, and on rein.-con. spans for east end. Both approaches involve 880,000 ft. No. 12 creosoted timber and 60,000 lin.ft. No. 12 creosoted piling; eastern approach involves 1,775 cu.yd. Class A and 300 cu.yd. Class B concrete, and 395,000 lb. reinforcing steel. C. A. Browne, state highway engr. Noted May 5.

Ga., Elberton—Until July 19, by J. Y. Swift, chn. Comrs. Elbert Co., building 72 ft. 3 span bridges over Dry Fork Creek, involving 64 cu.yd. Class A and 51 cu.yd. Class B concrete, 14,674 lb. reinforcing steel, etc. J. J. Goodwyn, Jr., Court House, Athens, engr.

★Wis., Kenosha—City let contract constructing (1) concrete abutments and approaches (2) raising and moving water main across bridge, on Middle St., to Grieling Gros., Co., Green Bay, (1) $49,884 (2) $9,769.

Ia., Greenfield—Until July 27, by Auditor Adair Co., for 10 box culverts, 1 I-beam bridge and 1 pony truss bridge.

Ia., Audubon—Until July 19, by Auditor Audubon Co. for bridge and culvert work involved in Federal Aid Project 52, from Exira north to Carroll Co. line.

Ia., Atlantic—Until July 26, by Auditor Cass Co., for 4 box culverts, 2 circular concrete culverts, 3 I-Beam bridges and 1 pony truss.

Tex., Shamrock—Until July 25, by L. D. Miller, judge Wheeler Co., (Wheeler), building 1,380 ft. pile trestle over North Fork of Red River about 3¾ mi. from here. P. V. V. Pennybacker, co. engr.; advertised in this issue.

Cal., El Monte—Until July 25, by Bd. Supervs. Los Angeles Co. (Los Angeles), building 550 ft. rein.-con. bridge, girder type, to have nine 54 ft. and two 32 ft. spans, over Rio Hondo, near here. About $130,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Lynn—Metropolitan Dist. Comn., 18 Tremont St., Boston, let contract building 663 ft. bridge, pile bents, wood frame, 42 ft wide, over Saugus River, to Genl. Electric Co., Main St. About $33,000. Noted July 7.

N. Y., Troy—C. L. Cadle, supt. Pub. Wks., Capitol, Albany, received bids July 1, building bridge across Hudson River between 112th St., here, and Ontario St., Cohoes, from Terry & Tench, Grand Central Terminal, New York City, $562,197; Seeds & Derham, 6320 Wissahickson Ave., Phila., $563,860; Vang Constr. Co., Cumberland, Md., $569,789. Noted June 9.

★New Jersey — State Highway Dept., Broad St. Bank Bldg., Trenton, let contract repairing bridge over Matawan Creek, M.P. 101.2 on Route 4, Sect. 4 in Matawan and Keyport, Monmouth Co., to F. W. Schwiers, 90 West St., New York City, $69,900. Noted June 23.

★Pa., Bethlehem—Pub. Service Comn. of Commonwealth of Pa., Harrisburg, let contract building bridge across Lehigh River, to Rodgers & Hagerty, Inc., 103 East 125th St., New York City, $2,568,000. Noted June 2.

★Pa., Homestead—Allegheny Co. (Pittsburgh) let contract reinforcing bridge, here, (1,300 ft. long, 30 ft. wide), new decking and wooden creosoted block paving, to Independent Bridge Co., May Bldg., Pittsburgh. About $90,000.

★Pa., Pittsburgh—City let foundation and steel contract for 275 ft. bridge over Pennsylvania R.R. tracks, on Centre Ave., to Hughes-Foulkrod Co., Oliver Bldg. About $50,000.

Va., Snowden — State Highway Comn., Richmond, received bids building 645 ft. bridge over James River, Federal Aid Project 48-D, between Amherst and Bedford Counties, involving 58 cu.yd. Class A and 513 cu.yd. Class B concrete, 16,480 lb. reinforcing steel, from J. E. Lane & Co., Altavista, $44,743; A. N. Campbell, Lynchburg, $47,578; Roanoke Iron & Bridge Wks., Roanoke, $52,742.

★Florida—State Highway Comn., Tallahassee, let contracts to Pensacola Shipbuilding Co., Little Bayou St., Pensacola, building bridge over Alapaha River, $73,049, over Suwannee River, $45,421, over Little St. Mary's River, $29,923, over Choctawhatchee River, $142,006; to Prayton, Howton & Wood, Albany, Ga., bridge over Swift Creek, $6,108; to Hyde & Baxter, 711 13th St., N. W., Wash., D. C., 2 bridges over Bullfrog Creek, $33,121; to Luten Bridge Co., West Market St., York, Pa., bridge over Little Manatee River, $50,575. Noted June 16.

★Tennessee—See "Streets and Roads."

★Tennessee — State Highway Comn., Nashville, let contract building 0.454 mi. bridges and approaches, Federal Aid Project 83, Marshall Co., to T. Worthington & Co., 907 1st Natl. Bank Bldg., Birmingham, Ala., $54,023.

★Wis., Rice Lake—City let contract building 225 ft. rein.-con. bridge to have 24 ft. roadway and two 6 ft. walks, to Stein Constr. Co., 204 Grand Ave., Milwaukee. About $36,802. Noted July 7.

Wis., Wisconsin Rapids—State Highway Comn., Madison, received bids building Wisconsin Rapids Bridge, 543 ft. long, from C. R. Meyer, 50 State St., Oshkosh, $132,800; Miller Fifield Co., Waterloo, Ia., $146,666; Wausau Iron Wks., Wausau, $147,400. Noted June 16.

★Kan., Labette—Comrs. Oswego Co. let contract building one 140 ft. bridge, having two 70 ft. arches, involving 15 cu.yd. rein.-con., 410 cu.yd. concrete, 47 ton steel, 1,030 cu.yd. dry earth, 670 cu.yd. wet earth and 40 cu.yd. rock excav., to Western Bridge Co., Harrisconville, Mo., $36,158.

★Tex., Wharton—Wharton Co. let contract building 800 ft. rein.-con. trestle bridge, 18 ft. wide, over San Bernard River, to Walsh & Burney, Hicks Bldg., San Antonio, $56,346. Noted July 7.

★Wash., Cicero—Snohomish Co., Everett, let contract building 240 ft. steel span over Stillaguamish River near here, to R. E. Meith, Everett, $27,477. Noted May 5.

Streets and Roads

PROPOSED WORK

N. Y., Lackawanna — City voted $200,000 bonds to pave Ridge Rd., Warsaw and Center Sts. J. V. O'Connor, City Hall, clk.

N. J., Mt. Holly—Bd. Freeholders Burlington Co., plans to pave 2 mi. road from Edgewater Park to Burlington, 20 ft. wide, sheet asphalt. About $60,000. J. J. Logan, Mt. Holly, engr.

Pennsylvania—State Highway Dept., Harrisburg, rejected bids June 21, building Route 82, Crawford Co. and Route 304, Erie Co. Noted June 30.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, drain, grade, bridge and topsoil 14½ mi. road from Millers Creek to Summit of Blue Ridge, State Project 611, Wilkes Co., about $75,000, 22 mi. road from Mecklenburg Co. line via Mooresville to Statesville, State Project 587, Iredell Co., $125,000; 1½ mi. road between Federal Aid Project 55 A and Charlotte, State Project 589, Mecklenburg Co., $50,000. C. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, drain, grade, bridge and topsoil 18 mi. road from North Wilkesboro to Mulberry Gap, State Project 610, Wilkes Co., about $100,000; grade, drain and hard surface 2.9 mi. road from Thomasville to Guilford Co. line, State Project 592, Davidson Co., $90,000. C. Upham, state highway engr.

North Carolina — State Highway Dept., Raleigh, plans to clear, grub, drain, grade and topsoil 14½ mi. road from end of Federal Aid Project 61 A, near Navassa, to Columbus Co. line, State Project 597, Brunswick Co., about $85,000, 15 mi. road from Greenville to Edgecomb Co. line, near Bethel, State Project 606, Pitt Co., $80,000, 6 mi. road from Mayo Creek to Virginia State line near Virginia, State Project 594, Person Co., $30,000; clear, grub, grade, drain, bridge and topsoil 16 mi. road from Williamston to Pitt Co. line, State Project 603, Martin Co., $85,000, 23 mi. road from Brunswick Co. line to Wassamaw Station, State Project 598, Columbus Co., $120,000; grade, drain, and hard surface 12 mi. road from end of Federal Aid Project 65 to Lenoir Co. line, State Project 607, Pitt Co., $65,000, 2.4 mi. road from point 12 mi. north of Elizabeth City to South Mills, State Project 605, Pasquotank Co., $75,000; grade, drain and pave with concrete or some asphaltic type 7 mi. road from Garner to Johnston Co. line, State Project 520, Wake Co., $215,000, 7 mi. road from Snow Hill to Lenoir Co. line, State Project 599, Greene Co., $215,000; grade, drain, bridge and gravel surface 4 mi. road between Federal Aid Project 99 and 110, State Project 522, Orange Co., $25,000. C. Upham, state highway engr.

Fla., Ocala—City rejected bids opened June 28, paving 16 mi. various streets, brick or asphalt. About $150,000. Noted June 16.

Tenn., Johnson—City plans to pave and improve various streets. About $300,000. C. Dyer, Johnson City, engr.

Ill., Troy—City having plans prepared grading, draining and surfacing various streets, bituminous macadam. About $30,000. W. E. Howden, clk. Private plans.

Wis., Shorewood (Milwaukee P. O.)—Village plans to pave Shorewood, Farwell and Frederick Aves., Cramer and James Sts., involving 15,000 sq.yd. concrete. F. W. Ullius, Jr., 1288 Murray Ave., engr.

Kan., Augusta—City plans to pave 3,000 ft. Walnut and 7th Sts., brick, involving 2,000 cu.yd. earth excav. and 6,000 lin.ft. concrete curbing. About $50,000. Ruckel Eng. Co., Hutchinscon, engr.

Missouri—State Highway Dept., Jefferson City, plans to build 2.25 mi. state road from Springfield to Memphis, Federal Aid Project 184, Wright Co., involving 5,394 cu.yd. earth excav., 23,760 sq.yd. gravel, etc. About $28,435. A. Graham, state highway engr.

Missouri—State Highway Dept., Jefferson City, plans to build 1.04 mi. state road from Hopewell northward, State Aid Project S 20.66, Warren Co., involving 9,905 cu.yd. earth and 5,569 cu.yd. rock excav., 2,168 cu.yd. borrow and 8.8 cu.yd. Class C concrete masonry, cost $23,174; 2 mi. Gravois State Rd., State Aid Project S 20.64, Jefferson Co., 4,721 cu.yd. earth excav., 18,844 sq.yd. reconstructed base course, and specification A gravel pavement, 37.1 cu.yd. Class B and 26.2 cu.yd. Class C concrete masonry, etc., $21,208. A. Graham, state highway engr.

Mo., Cape Girardeau—City having plans prepared rein.-con., paving and concrete curbing and guttering Bway., Main and Independence Sts. About $25,000. E. Sailor, Cape Girardeau, engr.

Mo., Chillicothe — City plans to suface East Clay, South Vine and Walnut Sts., tarvia on concrete base. About $75,000.

Mo., Chillicothe—City plans to pave and curb 3 mi. alley from Calhoun to Polk Sts., 18 ft. wide, verticle fibre brick on 5 in. concrete base, oak curbing. About $30,000. O. Cook, clk. Engineer not selected.

Mo., Clinton—Henry Co. had plans prepared grading and building concrete bridges on 15 mi. Deepwater Rd., Federal Aid 127, involving 55,032 sq.yd. Joplin chats, 23,188 cu.yd. earth excav. and 8,549 lb. reinforcing steel, cost $93,785; 14 mi. Warrensburg Rd., Federal Aid Project 128, 30,188 cu.yd. earth and 450 cu.yd. rock excav. and 18,218 lb. reinforcing steel, $34,793. G. B. Park, co. engr.

Mo., Columbia—Boone Co. having plans prepared grading and gravel surfacing 22 mi. various roads. About $230,000. H. R. Brown, Columbia, engr.

Mo., Dawson—City c/o Special Rd. Dist. plans to grade and surface various roads, bituminous macadam. About $35,000. Engineer not selected.

Mo., Jasper—Jasper Co. (Carthage) plans election to vote on $40,000 bonds to improve 10 mi. road from here to Barton Co. line, Jasper Special Rd. Dist. W. R. Shanklin, 715-16 Frisco Bldg., Joplin, consult. engr.

Mo., Moberly—City plans to resurface various streets, brick or asphalt. About $35,000. J. F. Curry, clk. Engineer not selected.

Mo., Poplar Bluff—City having plans prepared improving 2nd and Spring Sts., concrete monolithic pavement, concrete curbs and gutters. About $50,000 and $75,000 respectively. E. C. Nickey, Poplar Bluff, engr.

Mo., Webb City — City, c/o Special Rd. Dist. Comn., plans to pave 2 mi. Madison St. from West to Main Sts., 24 ft. wide, brick or asphalt on concrete base. About $40,000. Engineer not selected.

Streets and Roads (Continued)

Mo., Weston—City having plans prepared surfacing various streets, involving 30,000 sq.yd. brick or asphalt on concrete base. About $150,000. G. A. Stockley Eng. Co., Graphic Arts Bldg., Kansas City, engrs.

N. D., Grafton—City plans to pave 20 blocks. About $80,000. H. J. Johnson, clk.

Ark., Little Rock—City plans to hard surface 2 mi. Prospect Ave. from Stift Sta. to city limits. J. H. Rice, City Hall, engr.

Col., Denver—City plans to pave ¾ mi. West 44th Ave., Paving Dist. 1, asphalt. Cost $26,318. J. B. Hunter, City Hall, engr.

Cal, Pomona—City will sell $200,000 bonds July 19 to build roads. T. R. Trotter, clk.; advertised in this issue.

Que., Montreal—City plans to pave Belanger St. from Christopher Columbus to Drolet Sts., cost $49,960; Cote de Neiges Rd., $229,404; St. James St. W., $36,300; Sanguinet St. from Craig to Sherburne Sts., $57,690, all asphalt. E. Blanchard, city engr.

Que., Montreal—City plans to pave 1,320 ft. St. Hubert St. from Sherbrooke to Roy Sts., cost $25,240; St. Andre St. from Chenier to Roy Sts., $6,404; Chenier St. from St. Denis to Amherst Sts., $32,287, all asphalt. E. Blanchard, city engr.

Ont., Sandwich—Town having plans prepared and soon receives bids paving Rankin Ave. from London to Wyandotte Sts., involving 4,400 cu.yd. excav., 3,700 sq.yd. grading, 6,387 sq.yd. concrete pavement. About $26,000. E. R North, clk. C. R. McCall, 7 Gas Bldg., Windsor, engr.

Ont., Simcoe—Town receives bids about July 23, building concrete pavements. About $85,000. G. R. Marston, Simcoe, engr.

Ont., Windsor—City soon receives bids building 350,000 sq.ft. granolithic concrete sidewalks. Bonds for $90,000 voted for project. M. E. Brian, city engr.

BIDS DESIRED

Massachusetts—Until July 26, by State Highway Dept., Boston, paving 2,750 ft. state highway, in Plympton, 18 ft. wide, bituminous concrete, cost $25,000; 7,300 ft. in Pembroke, 18 ft. wide, bituminous concrete, $55,000; 9,600 ft. in Holden, 18 ft. wide, bituminous macadam, $65,000; 16,060 ft. in Hardwick, bituminous macadam, $110,000; 7,200 ft. in Littleton, 18 ft. wide, bituminous concrete, $55,000; 7,650 ft. in North Adams, 20 ft. wide, rein.-con., $75,000. A. W. Deane, 413 Statehouse, Boston, highway engr.

N. Y., Fulton—Until July 27, by G. W. Hackett, comr. Pub. Wks., paving South 4th, West 2d, Hart and South 5th Sts.; advertised in this issue.

N. Y., Long Island City—Until July 20, by M. E. Connolly, pres. Queens Boro, 68 Hunterspoint Ave., regulating, curbing and laying sidewalks on (1) Manly St. from Thomson to Hunterspoint Aves., 1st Ward; curbing, recurbing and paving (2) 7th Ave. from Grand to Flushing Aves., 1st Ward, sheet asphalt on 6 in. concrete foundation; regulating and grading (3) Van Pelt St. from Queens Blvd. to Skillman Ave., 1st Ward. (4) Fiske Ave., 2nd Ward from Grand St. to northerly curb line of Falkner St., partially grading to temporary grade extending thence to line parallel with and about 39 ft. southeasterly from northwesterly house line of Mueller St., regulating, grading and laying gutters from Willow Ave. to Mueller St., curbing, flagging and laying crosswalks from Burrough Ave. to Mueller St., in Jay Ave., 2nd Ward; regulating and paving (5a) Cherry (Cypress) Ave. from Parsons Ave. to Phlox (Amber) Pl., (b) Burlington St. from Cherry (Cypress) Ave. to property line about 100 ft. southeasterly, etc., preliminary pavement of bituminous macadam; regulating and repaving (6) 7th Ave. from 6th to 13th Sts. and 28th St. from 4th to 7th Aves., Whitestone, 3rd Ward; regulating, grading, curbing, laying sidewalks, paving and building sewer basins in (7) 80th St. (Leggett Ave.) from Park Lane south to Jamaica Ave., 4th Ward.

N. Y., New York—Until July 21, by Park Bd. at office of Dept. Parks, Municipal Bldg., repaving West Drive System south of 102nd St. in Central Park, sheet asphalt on existing concrete foundation. F. D. Gallatin, pres.

N. J., Freehold—Until July 19, by Boro Council paving West Main St. and portion of Court St., rein.-con. G. D. Cooper, 60 Broad St., Red Bank, civil engr.; advertsed in this issue.

N. J., Mt. Holly—Until July 29, by Bd. Freeholders Burlington Co., reconstructing Mt. Holly-Burlington Rd., sheet asphalt, in Northampton, Westampton, and Burlington Twps. and Burlington City. J. Logan, 11 Main St., co. engr; advertised in this issue.

N. J., New Brunswick—Until July 28, by Bd. Freeholders Middlesex Co. improving Livingston Ave., North Brunswick Twp. A. B. Fox, 175 Smith St., Perth Amboy, engr.; advertised in this issue.

N. J., Sewaren—Until July 28, by Bd. Freeholders Middlesex Co. (New Brunswick), improving Sects. 1 and 2 West Ave., Woodbridge Twp. A. B. Fox, 175 Smith St., Perth Amboy, engr.; advertised in this issue.

Pa., Pittsburgh—Until July 19, by city, repaving East St. from Royal to Creek Sts., sheet asphalt. About $64,000.

Maryland—Until July 19, by State Highway Comn., 601 Garrett Bldg., paving state highway in Baltimore City, Prince George, Cecil and Queens Counties. J. N. Mackall, chn.; advertised in this issue.

Virginia—Until July 22, by Clerk Madison Co., (Madison), surfacing 8.3 mi. Culpepper Rd. between Madison Cemetery and Culpepper Co. line, waterbound macadam and gravel with alternative on 4 mi. of hand broken rock; Liberty Mills Pike between Liberty Mills and O. Neals Crossing, 6 mi. gravel and 3.4 mi. waterbound macadam, for State Highway Comn., 116 South 3rd St., Richmond.

North Carolina—State Highway Dept., Raleigh, receiving bids grading road between Wilkesboro and Laurel Springs, Wilkes Co., about $25,000; road between Wilkesboro and Jefferson, Wilkes and Ash Counties, $25,000; road between Wilkesboro and Boone, Wilkes and Watauga Counties, $150,000. Informal bids desired for furnishing grading equipment, including teams, on per diem basis. C. M. Upham, state highway engr.

North Carolina—Until July 20, by State Highway Comn., at div. office, Charlotte, grading, scarifying and reshaping 2.28 mi. road, State Aid Project 591, Union Co., involving 3,330 cu.yd. fine grading, 18,735 sq. yd. topeka or sheet asphalt, reshaping 3,700 sq.yd. old macadam, etc. About $62,000.

North Carolina—Until July 21, by State Highway Comn., at div. office, Tarboro, grading and paving 9.57 mi. State Aid Project 609, Pitt Co., involving 9,975 cu.yd. fine grading, 89,660 sq.yd. 1 course concrete, or 89,660 sq.yd. concrete base and header course with 84,060 sq.yd. topeka or sheet asphalt. About $260,000. C. Upham, Raleigh, state highway engr.

S. C., Camden—Until July 28, by Comrs. Kershaw Co., grading and surfacing 8.88 mi. Camden-Bishopville Rd., involving 49,769 cu.yd. common excav., 21,865 cu.yd. sand clay surfacing. J. D. Gregory, Camden, engr.

S. C., Orangeburg—Until July 26, by Comrs. Orangeburg Co., clearing, grubbing, grading and surfacing 19.88 mi. road from Orangeburg to Charleston, involving 55,349 cu.yd. excav., 48,932 cu.yd. sand clay surfacing, etc. Address L. K. Sturkie, Orangeburg.

Ga., Elberton—Until July 19, by J. Y. Swift, chn. Comrs. Elbert Co., building 6 mi. State Route 17, Federal Aid Project 225, involving 927 lin.ft. 15-30 in. pipe, 34,574 cu.yd. earth and 1,100 cu.yd. rock excav., 13,950 cu.yd. clay gravel surfacing, etc. State to furnish necessary cement f.o.b. nearest R.R. siding. R. T. Goodwyn, Jr., Court House, engr.

Alabama—Until Aug. 2, by State Highway Dept., Montgomery, grading, draining and surfacing 4.767 mi. road from Lanett to Fairfax, Chambers Co., involving 3.166 acres clearing and grubbing, 14,161 cu.yd. common and 1,300 cu.yd. rock excav., 13,980 cu.yd. gravel surfacing, 71.33 cu.yd. Class B concrete, etc.; 10.765 mi. road from Greenville to Lowndes Co. line, Butler Co., involving 32.62 acres clearing and grubbing, 73,745 cu.yd. common and 700 cu.yd. rock excav., 33,700 cu.yd. sand clay surfacing, 15,000 sq.yd. mixing sand clay, 96.85 cu.yd. Class B and 80.79 cu.yd. Class A concrete, etc. W. S. Keller, state highway engr. Noted June 2 and 30.

Ohio—Until July 22, by L. C. Herrick, dir. Highways and Pub. Wks., Columbus, grading, draining and paving 2.164 mi. Sect. F Woodsfield-Sistersville Rd., I. C. H. 387, Monroe Co., (A1 or T1) bituminous macadam on rolled base, cost $121,598; 3.765 mi. Sect. R Cadiz-Dennison Rd. I. C. H. 370, Harrison Co., (T1) bituminous macadam on rolled base, $156,356.

O., Akron—Until July 25, by Comrs. Summit Co. grading approach to viaduct, involving 80,400 cu.yd. earth excav. About $40,000. C. J. Costigan, Court House, engr.

O., Garfield Heights (Cleveland P. O.)—Until July 22, by city, paving East 52d St., involving 17,852 sq.yd. asphalt on 6 in. concrete base and 1,447 lin.ft. stone curb and tile gutter. About $32,000. R. Hecker, Leader-News Bldg., Cleveland, engr.

O., West Park—Until July 16, by city, grading and paving Elsienna, West 118th, West 123rd, West 120th, West 127th and West 122nd Sts. About $75,000. J. Reitz, Town Hall, engr.

Mich., Grand Rapids—Until July 19, by Bd. Rd. Comrs. Kent Co., grading, draining and surfacing 2.024 mi. Assessment Dist. Rd. 33, involving 11,640 cu.yd. excav., 21,375 sq.yd. concrete or bituminous concrete. O. S. Hess, Grand Rapids, engr.

Illinois—Until July 19, by Div. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 2.55 mi. Sect. 1-I Project 7, La Salle Co., 18-20 ft. wide; 0.81 mi. Sect. 2-A, Route 2, Jackson Co., 30 ft. wide; 2.6 mi. Sect. 55-A, Route 3, Greene Co., 30 ft. wide; 0.46 mi. Sect. 57-A, Route 3, Jersey Co., 30 ft. wide; 2.11 mi. Sect. 21-A, 3.02 mi. Sect. 22-A, 5.13 mi. Combination A, 2.53 mi. Sect. 23-A and 7.66 mi. Combination B, all Route 5, Stephenson Co., 32 ft. wide; 2.57 mi. Sect. 4-A, 3.7 mi. Sect. 5-A and 6.27 mi. Combination C, all Route 9, Woodford Co., 30 ft. wide; 2.18 mi. Sect. 5-X, Route 10, Piatt-Champaign Co., 32 ft. wide; 3.9 mi. Sect. 6-X and 1.44 mi. Sect. 7-X, both Route 10, Champaign Co., 32 ft. wide; 7.52 mi. Combination D, Route 10, Piatt Co., 30 ft. wide; 7.06 mi. Sect. 6-A, Route 13, Williamson Co., 30 ft. wide; 5.48 mi. Sect. 7-A 12.54 mi. Combination E, both Route 13, Williamson-Saline Co., 30 ft. wide; 6.08 mi. Sect. 8-A and 18.62 mi. Combination F, both Route 13, Saline Co., 30 ft. wide; 1.27 mi. Sect. 1-A, Route 14, Perry Co., 30 ft. wide; 1.61 mi. Sect. 3-A, Route 14, Franklin Co., 32 ft. wide; 2.88 mi. Combination B, Route 14, Perry-Franklin Co., 30 ft. wide; 1.52 mi. Sect. 13-A, 3.17 mi. Sect. 14-A and 4.69 mi. Combination H, all Route 18, Kendall Co., 22-32 ft. wide; 5.67 mi. Sect. 6-A, 6.8 mi. Sect 8-A and 12.47 mi. Combination I, all Route 31, Brown Co., 32 ft. wide; 0.25 mi. Sect. E, Calhoun Co., 24 ft. wide; 0.45 mi. Sect. H, Macoupin Co., 24 ft. wide. C. Older, ch. highway engr.

Ill., Centralia — Until July 19, by city, grading and surfacing Melrose Paving Dist. asphalt. About $96,906. Q. W. Lernon, city engr. Noted June 9

Ill., Kankakee—Until July 19, by city, grading and surfacing Lincoln Ave. from Maple to Eagle Aves., bituminous macadam on concrete base. About $34,000. R. D. Gregg., Kankakee, engr.

Ill., Peoria—Until July 19, by city, surfacing 10 blocks Knoxville Ave., 36 ft. wide, brick or asphalt on concrete base. About $37,361. O. Jeffries, Peoria, engr.

Wis., Beaver Dam—Until July 29, by Bd. Pub. Wks., paving various streets, involving 17,150 sq.yd. Warrenite bitulithic asphalt, rein.-con. or asphaltic concrete, 10,110 lin.ft. curb and gutter, 6,570 cu.yd. excav., 520 ft. protection curb, 4,000 sq.ft. sidewalk approaches, 1,480 ft. 10-15 in. storm sewer, etc. Parsons & Orbert, 215 West Water St., Milwaukee, engrs.

Ia., Atlantic—Until July 26, by Auditor Cass Co., grading 3.126 mi. primary road Project 150, from Anita northeast to Adair Co. line, involving 79,986 cu.yd. earth excav.

Ia., Boone—Boone Co. receiving bids, grading, draining and gravel surfacing primary road from Greene Co. line east of Ogden. About $65,000. J. A. Illeman, Boone, engr.

Ia., Dakota—Until July 19, by Auditor Humboldt Co., grading 2.045 mi. road south from here and 12.24 mi. road east from here, Federal Aid Project 117, involving 94,312 cu.yd. earth excav.; draining 36.624 mi. north, east, west and south from here and Humboldt, involving 213,533 lin.ft. 6-12 in. tile, 43 type A and 98 type B tile intakes; gravel surfacing 5.986 mi. from Gilmore City, east, involving 8,980 cu.yd. gravel.

Ia., Greenfield—Until July 27, by Auditor Adair Co., grading 3.2764 mi. primary road, Project 162, from Adair southwest to Cass Co. line, involving 64,599 cu.yd. earth excav.

Streets and Roads (Continued)

Ia., Iowa City—City receiving bids paving alley, brick on 6 in. concrete base. About $25,000. G. J. Dobres, clk. Private plans.

Ia., Marshalltown—Until July 18, by Auditor Marshall Co., grading and draining 6.949 mi. primary road, Project 13, on Lincoln Highway east and west from here, involving 76,045 cu.yd. earth excav., 9,800 lin.ft. 6-12 in. tile drain and 5 type A tile intakes.

Ia., Marshalltown—Until July 25, at office of city clerk, constructing and reconstructing pavement. O. G. Herm, city engr.; advertised in this issue.

Minn., Hastings—Until Aug. 1, by city, paving, grading, curbing, guttering and installing storm sewers in 2nd and Sibley Sts. About $60,000. F. M. Connor, city engr.

Minn., St. Paul—Until July 18, by City Purchasing Agent, repaving West 7th St. from Seven Corners to Tuscarora Ave., sheet asphalt. Bids for furnishing materials and labor, and for furnishing materials only, work then to be done by force account. Work involves 580 ton asphalt, 1,549 cu.yd. binder stone, 112 bbl. Portland cement, 75 cu.yd. gravel or crushed rock, 50 cu.yd. concrete sand, 2,432 cu.yd. fine asphalt sand, 728 cu.yd. coarse asphalt sand and 580 cu.yd. limestone dust. About $50,000. Noted Jan. 27.

Mo., Hopkins—Until July 19, by city, grading and building culverts on 2 mi. Saints Highway, 30 ft. wide. About $27,750. Private plans.

Mo., Monett—Until July 19, by city, paving 3d St. from Bway. to County St. and 4th St. from Bond to Cleveland Sts., concrete Tarvia "A." About $40,000. Private plans.

Mo., St. Louis—Until July 26, by city, paving Letting 1197, brick and asphalt; reconstructing foundation on Letting 1198. About $44,480. E. R. Kinsey, pres. Bd. Pub. Serv. Private plans.

Tex., San Augustine—Until July 20, by W. K. Knight, judge San Augustine Co., grading, graveling and draining 20.95 mi. Highway 21. W. A. French, San Augustine, co. engr.

Que., Maniwaki—Until Aug. 3, by Mayor, paving various streets with waterbound macadam, cost $20,000, concrete sidewalks, 4 ft. wide, $15,000. E. S. Gauthier, Town Hall, engr.

Ont., Kirkland Lake—Until July 22, by M. Campbell, Kirkland Lake, paving 7 mi. various streets, waterbound macadam, Tack Twp. About $150,000.

Ont., Weston—Until July 22, by I. L. Taylor, paving 2½ mi various streets, bituminous macadam and waterbound macadam. About $28,612. Noted June 9.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★New Hampshire—State Highway Dept., Concord, let contract paving 1.01 mi. state highway in Hooksett, involving 450 ton crushed native stone, 21,847 gal. bituminous material, 10,710 sq.yd. modified surface concrete, 1,671 ton bituminous macadam, etc., to Robie Consolidate Concrete Co., 936 Elm St., Manchester, $16,332; 1 mi. Newport Rd., Sunapee, 1,637 cu.yd. crushed gravel foundation course, 2,964 ton crushed native stone, 22,100 gal. bituminous material, 1,920 ton bituminous macadam, etc., to R. E. Bull, Fitchburg, Mass., $31,680; 2.2 mi. in Newington, 6,820 cu.yd. field stone foundation, 2,677 ton bituminous macadam, to C. A. Badger Constr. Co., 2 Pratt St., Portsmouth, $55,932. Noted June 23.

★Massachusetts — State Highway Dept., Boston, let contracts paving 3.042 mi. state highway in Winchester and Woburn, bituminous macadam, to Powers Bros., North Montello St., Brockton, $106,098; 1.907 mi. in Middleton and Danvers, 18 ft. wide, bituminous macadam, to F. E. Ellis, Melrose, $70,970. Noted June 16.

Mass., Boston—City received bids July 6 paving Charles St., wood block on concrete base, from A. Palladino, Newton Highlands, $39,040; B. E. Grant, 605 Barrisbers Hall, $40,677.

Mass., Pittsfield—City received bids paving Bank Row, Park Row and portion of East St., brick on concrete base, from D. J. Walsh, 107 Fenn St., $31,000; C. B. Lindholm, 24 North St., $34,000; Malloy & Niggard, Springside Ave., $37,000. Noted June 16.

★Conn., Hartford—City let contract paving section of Washington St., sheet asphalt, to E. Balf Co., 26 State St. About $26,000.

★New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, let contract improving 5.39 mi. Victory-Red Creek, Parts 1 and 2, Highway 8048, Cayuga Co., to Spellman-Oliver Co., Chateaugay, $162,327; 3.02 mi. Morehouseville-Piseco, Part 2, Highway 1592, Hamilton Co., to E. J. Anderson Co., 36 State St., Albany, $126,218; 2.16 mi. Caledonia-Mt. Morris, Part 4, Highway 5663, Livingston Co., to Sweeney & Boland, 311 Cutler Bldg., Rochester, $72,574; 3.69 mi. Rush-Mendon, Part 1, Highway 1392, Monroe Co., to J. Petrossi Co., 112 Livingston Bldg., Rochester, $108,076; 2.49 mi. Dickersonville-Cambria, Highway 1316, Niagara Co., to W. C. Rich, Youngstown, $84,713; 3.95 mi. Erwin-Lawrenceville, Part 1, Highway 1593, Steuben Co., to W. L. Sherrill, Hudson Falls, $184,899; 1.73 mi. Prattsburg-Italy Hill, Part 1, Highway 1594, Steuben Co., to H. W. Patterson, Belmont, $39,399; 0.26 mi. Bath Village; East Steuben St., Highway 5350-A, Steuben Co., to Bath Constr. Co., Bath, $7,349; repairing 2.75 mi. Roads 57 and 136, Rep. Con. 1323, Clinton Co., to De Graff & Hogeboom, Inc., Kingston, $41,914; 1.02 mi. Rd. 60, Rep. Con. 1320, Monroe Co., to A. A. Howard, Fairport, $19,057; 1.19 mi. Roads 315 and 678, Rep. Con. 1311, Otsego Co., to M. Vrooman, Gloversville, $39,732; 3.85 mi. Rd. 5255, Rep. Con. 1322, Steuben Co., to Greenfield Constr. Co., Hornell, $34,397. Noted June 23.

★N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, let contracts to Cranford Co., 52 9th St., regulating and curbing, etc., East 19th St., cost $16,029, Frost St., $5,708, Stillwell Ave., $10,233, West 19th St., $5,937, 63rd St., $9,528; to Grimm Constr. Co., 170 McKinley Ave., Bay 37th St., etc., $3,287, East 35th St., $3,729; to Simonelli & Son, Inc., 28 Conselyea St., 21st Ave., $969. Noted June 30.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, received bids July 6, regulating and grading, etc., (1) westerly side of Bell Ave., 3rd Ward, from Crocheron to Jackson Aves., (2) 86th St. from Park Lane south to Jamaica Ave. (3) Ralph St. from Prospect to Grandview Aves., 2nd Ward; regulating and paving (4) Decatur St. from Myrtle to Forest Aves., sheet asphalt on concrete foundation; regulating and recurbing, etc., (5) Ridge St. from Sherman to Ely Ave., 1st Ward, sheet asphalt on concrete foundation, from

R. A. Hess, Inc., Corona, (1) $24,726.

Gifford Constr. Co., (1) $26,526.

Welsh Bros. Contg. Co., 32 Queens St., Astoria, (1) $28,972, (2) $29,726, (3) $10,498.

Cleveland Trinidad Paving Co., Flushing, (4) $10,416, (5) $20,483.

W. P. McDonald Constr. Co., 618 Union St., Brooklyn, (4) $11,962, (5) $23,652.

Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (4) $12,601, (5) $23,741.

Kennedy & Smith, Inc., 93 Amity St., Flushing, (2) $28,826.

C. Gallagher, 745 Dean St., Brooklyn, (2) $29,125. Noted June 30.

N. Y., New York — H. Bruckner, pres. Bronx Boro, received bids June 28 repaving Eagle Ave. from East 149th to East 161st Sts., granite block, from J. Meehan & Sons, 74 Cortlandt St., $74,423; Burnside Contg. Co., 270 Burnside Ave., $74,862; Leonard Paving Co., 233 Bway., $74,948. Noted June 23.

★New Jersey—State Highway Dept., Broad St. Bank Bldg., Trenton, let contract furnishing and applying Lignin binder on sections of state highway system, to M. I. Young, Aleda Apartments, Trenton. About $88,000. Noted June 9.

N. J., Beverly—Bd. Freeholders Burlington Co. (Mt. Holly), received bids July 8, paving 7,456 sq.yd. Warren St., concrete, from L. J. Sieling, 216 West Front St., Red Bank, $31,500; W. French, 226 West Main St., Moorestown, $35,100. Noted June 30.

★N. J., Plainfield—City let contract improving 1 mi. Sect. 9, State Highway, 18 ft. wide, to Utilities Constr. Co., 5 Spring St., New Brunswick, $105,691. Noted June 16.

★N. J., Salem—Bd. Freeholders Salem Co. let contract excavating and graveling 7 mi. road from Shirley to Oldmans Creek, to Tri-State Constr. Co., Bridgeton. About $79,000. Noted July 7.

★N. J., Trenton—City let contract paving Southard St., Laurel and Bellevue Aves., sheet asphalt on 6 in. foundation, to J. J. Barrett, 147 Lafayette Ave., $96,518. Noted June 23.

★N. J., Woodbury—Bd. Freeholders Gloucester Co. let contract paving 8,600 sq.yd. Crown Point Rd., Amesite, to P. Connelly, 3730 Market St., Phila., $28,400. Noted July 7.

★Pennsylvania—State Highway Dept., Harrisburg, let contracts building Routes 140 and 141, Schuylkill, Haven Boro. and Route 141, Orwigsburg Boro., Schuylkill Co., to W. C. Evans, Ambler, $61,308 and $164,382 respectively; Applications 1185, 1186 and 1187, Venango Co., to H. P. Streicher Co. Inc., 319 Terminal Bldg., Toledo, O., $250,763; Route 51, Somerset Co., to D. Schoentag, Meyersdale, $119,171; Route 54, Indiana Co., to F. Murphy, 2635 West Chestnut St., Altoona, $106,074; Route 250, York Co., to H. E. Baton, 1713 Sansom St., Phila., $107,211; Route 295, Erie Co., to Penn Erie Constr. Co., Erie, $102,958. Noted June 30.

★Pa., Pittsburgh—City let contract repaving Cape May Ave. from West Liberty to Dagmar Aves., sheet asphalt to Dunn & Ryan Contg. Co., Standard Life Bldg., $25,372; Beaver Ave. from Juniatta to Sheffield Sts., to Booth & Flinn Ltd., 1942 Forbes St., $19,806.

Virginia—State Highway Comn., Richmond, received bids building 6½ mi. road between Teslen and Rue, Federal Aid Project 38, Acconac Co., involving 12,838 cu.yd. common excav., 7,538 sq.yd. scarifying, 61,119 sq.yd. concrete pavement, 123 cu.yd. Class A concrete, 6,790 lb. reinforcing steel, 924 lin.ft. concrete curbing, from Royer-Ferguson, High Point, N. C., 179,276; L. R. Colbert, Fredericksburg, $188,093; Cunningham & Melson, Newport News, $199,591; 12.97 mi. road between Cabin Point and Surry C. K., Federal Aid Project 116, Surry Co., 7 acres clearing and grubbing, 56,965 cu.yd. common excav., 33,958 cu.yd. gravel surfacing, 341 cu.yd. Class A and 420 cu.yd. Class B concrete, 27,028 lb. reinforcing steel, etc., from C. B. Hester, Greensboro, N. C., $87,117; A. L. Phillipe & Sons, Virginia City, $92,111, J. R. Moody & Co., Chester, $92,321, 6.08 mi. road between St. Paul and Colburn, Federal Aid Project 94, Wise Co., 4 acres clearing and grubbing, 71,864 cu.yd. common excav., 42,821 sq.yd. bituminous macadam, 194 cu.yd. Class A and 428 cu.yd. Class B concrete, 9,874 lb. reinforcing steel, etc., from W. W. Boxley & Co., Roanoke, $194,320, C. L. Hottell, Abongdon, $195,390.

★N. C., Nashville—Nash Co. let contract grading, draining and topsoiling 16½ mi. road from Nashville to Halifax Co. line, to Chandler and Ragland, Virgilina, Va. About $35,000.

★Tennessee — State Highway Comn., Nashville, let contract building, grading and surfacing 10.01 mi. Federal Aid Project 72, Marion Co., to W T. Hadlow, 16 Baldwin Bldg., Jacksonville, Fla., $178,590, (all bids on bridge for this project were rejected); 15.43 mi. Federal Aid Project 22-B, Caroll and Weakley Counties, to Z. W. Grooms & Co., Dresden, $282,311, bridges over 20 ft. span, to McAdoo-Wadell Brick Co., Union City, $51,400. Noted June 23.

★O., Akron—Director Pub. Serv. let contracts to T. E. McShaffrey Co., 173 South Forge St., paving 400 ft. Overlook and Highland Sts., $15,641, 300 ft. Yale St., $5,504, 700 ft. Thornton St., $13,184; to V. Olson Contg. Co., 507 Mahoning Bank Bldg., Youngstown, 800 ft. Ruth St., $14,148; to Akron Paving & Sidewalk Co., Akron, grading and laying sidewalks on 2,500 ft. Bowery St., $15,853. Noted June 23.

★O., Cleveland—City let contract grading, draining, curbing and paving Berry Ave. from West 73rd to West 82nd Sts., also Fidelity Ave. from West 105th St. to West Blvd., asphalt, to Cleveland Trinidad Paving Co., The Arcade, $11,597 and $10,656 respectively; Robertson Ave. from East 116th to East 122nd Sts., brick, to Enterprise Paving & Constr. Co., 84444 Bway., $27,551; East 43rd St. from Payne to Hough Aves., to Burnett & Hathaway, c/o Pavers Exch., Society for Savings Bldg., $16,917; Coit Rd. from St. Clair Ave. to East 145th St., to G. B. Herring, Drexel Ave., $17,644. Noted June 30 and July 7.

Streets and **Roads (Continued)**

★O., Cleveland—Comrs. Cuyahoga Co. let contract grading Somcenter Rd., to R. J. Burke Co., Schofield Bldg., $27,592. Noted June 2.

O., Cleveland Heights (Warrensville P. O.)—J. A. Wigmore & Co., East 13th St. and Euclid Ave., Cleveland, received only bid from Cleveland Trinidad Paving Co., The Arcade, Cleveland, grading, curbing and paving Meadowbrook Blvd., $24,906; Kildare Rd., $26,734; Silsby Rd., $26,351; Goodnor Rd., $15,744; Tullamore Rd., $32,232. Work involves 25,650 sq.yd. asphalt, 8,300 cu.yd. grading and 230,920 sq.ft. 6 in. concrete base, etc.

★Mich., Ontonagon—State Highway Dept. at office Bd. Rd. Comrs. Ontonagon Co. let contract grading and surfacing 2.211 mi. State Trunk Line Rd. 26-5, Sect. B, to Ontonagon Co. Rd. Comrs., Ontonagon, $29,200. Noted April 7.

★Mich., Sandusky—State Highway Dept. at office Bd. Rd. Comrs. Sanilac Co. let contract grading, draining and surfacing 5.027 mi. State Trunk Line Rd. 19-10, to Bacon Bros., Saginaw. Work involves 22,468 cu.yd. excav., $0.60, 113.4 cu.yd. 1: 2: 4 and 74.6 cu.yd. 1: 3: 6 concrete, $20, 47,113 sq.yd. gravel, $0.74, etc., total cost $55,716. Noted June 9.

★Ill., Canton—City let contract paving 2nd Ave. and Elm St., 5 in. brick on concrete base to M. Hickard & Sons, Canton. About $25,000.

★Ill., Champaign—City let contract paving 12 blocks 6th St., 36 ft. wide, concrete, to Swipes & Pilcher, Champaign, $36,343.

★Ill., Elmhurst—City let contract for paving various streets, asphalt, to Amer. Asphalt & Paving Co., 133 West Washington St., Chicago. About $230,000. Noted June 3.

★Ill., Lawrenceville—City let contract paving various streets, brick, to L. R. Harshman, Sullivan, $98,673. Noted June 23.

★Ill., Moline—City let contract surfacing various streets, brick on concrete base, to D. J. Ryan Const. Co., 41 1st National Bank Bldg., Davenport, Ia. About $25,000.

★Wis., Madison—Dane Co. State Rd. and Bridge Comn. let contracts to P. W. Ryan & Sons, Janesville, grading and gravel surfacing Albian-Attica Rd., involving 7,443 cu.yd. grading, 5,100 cu.yd. gravel surfacing, etc., $16,410, Cottage Grove-Stoughton Rd., $2,692, Roxbury-Springfield Corners Rd., $8,820; to J. W. Mitchell, Madison, Madison-Verona Rd., $14,701, Park St., $6,214.

★Wis., Mayville—City let contract paving various streets, involving 14,390 sq.yd. bitulithic on concrete base, to J. Rasmussen & Sons, foot of 7th St., Oshkosh, $79,220. Noted July 7.

★Wis., Milwaukee—City let contract paving (1) Burrell St. from Dover to Deer Pl., bituminous macadam, (2) 18th St. from Finn to Nash Sts., asphalt, (3) Melvina St. from Tentonia to 22nd Sts., asphalt, (4) 9th St. from Green Bay Ave. to Lake St., asphalt, (5) South Pierce St. from 39th to 34th Sts., bituminous concrete, (6) Townsend St. from 24th to West 24th Sts., asphalt, (7) 21st St. from Keefe to Pease Aves., asphalt, (8) alley, concrete, (9) nine alleys, concrete, to White Constr. Co., 68 Wisconsin St., (1) $4,020; F. P. Coughlin Co., 30 West La Salle St., Chicago, (2) $7,099, (3) $6,274; Badges Constr. Co., 97 Wisconsin St., (4) $3,787, (6) $7,837, (7) $8,367; J. Weiher & Son, 878 Franklin St., (5) $16,030; Bodemann Constr. Co., 801 Winnebago St., (8) $899; Clayton Constr. Co., 397 Farwell Ave., (9) $21,755.

★Wis., Viroqua—City let contract paving various streets, involving 19,588 sq.yd. rein.-con., 5,420 ft. curb and gutter, and 6,025 cu.yd. excav., to Gund-Graham Co., Freeport, Ill. About $70,000.

★Wis., Waukesha—Waukesha Co. let contract surfacing 3 mi. Waukesha-Genesee Rd., 18 ft. wide, concrete, to Froemming Bros., 1326 Humboldt Ave., Milwaukee, $80,726.

★Ia., Indianola—Warren Co. let contract grading and draining primary road, involving 202,789 cu.yd. earth excav., 10,170 ft. 6-12 in. tile, 11 intakes, to Cox Bros., Webster City. About $121,200.

★Minn., Ivanhoe—Lincoln Co. and State Highway Comn. let contract grading 14 mi. Federal Aid Project 146, State Project 6-21, involving 96,500 cu.yd. excav., to Roach Constr. Co., Arlington, S. D., $24,918. Noted June 23.

★Minn., Minneapolis—City will pave various streets. About $340,500. Work will be done by day labor. F. W. Cappelen, city engr.

Minn., St. Paul—Ramsey Co. opened bids July 5, grading and paving 2 mi. Larpenteur Ave. from Snelling Ave. west to county line, (a) washed gravel, (b) crushed stone, from E. M. Ganley Co., Inc., 1002 Plymouth Bldg., Minneapolis, (a) $50,826, (b) $58,813; G. J. Grant Co., Exch. Bank Bldg., St. Paul, (a) $52,772; Fielding & Shepley, 216 University Ave., St. Paul, (a) $54,275, (b) $56,167; W. J. Hay Co., Metropolitan Bank Bldg., Minneapolis, (b) $60,277. Noted June 23.

★Kan., Baxter Springs—City let contract paving Military Ave. from Sarfield St. to Railroad Ave., brick on concrete base, to V. E. Koch, 2304 Pennsylvania St., Joplin, Mo., $126,531.

Looking for a Position?

If you have glanced through the "positions wanted" columns of our Searchlight section you have probably discovered that jobs are much in demand just now.

Are you keeping track of where contracts are being let?

A contractor who lands a contract has to build up an organization capable of taking care of the new work. He is the man with whom you ought to get in touch.

Every week we report the
CONTRACTS AWARDED

★Kan., Caney—City let contract paving various streets, brick on concrete base, to McGuire & Cavender, New England Bldg., Kansas City, $64,703.

★Kan., Chanute—City let contract to J. K. Shinn, Independence, paving with brick, 8,166 sq.yd. South Grant Ave., $37,141, 863 sq.yd. East 9th St., $1,985, 350 sq.yd. East 2nd St., $1,730.

★Tex., Cleburne—Johnson Co. let contracts to Womack Constr. Co., Sherman, clearing, grubbing, grading, gravel surfacing and draining 12.05 mi. State Highway 2-A from Alvarado to Hill Co. line, cost $269,374; 12.56 mi. State Highway 2-A from Alvarado to Burleson, $299,699; 14.94 mi. State Highway 2, Federal Aid Project 20, $287,212; above amounts include 10% for engineering and contingencies and material furnished by county. All gravel furnished by county. Noted July 7.

Tex., Johnson—Cleburne Co. received bids grading, gravel surfacing and draining (1) 12.05 mi. State Highway 2 A from Alvarado to Hill Co. line, Federal Aid Project 228, involving 19,733 cu.yd. borrow and 6,554 cu.yd. loose and solid rock excav., 108,430 sq.yd. bituminous macadam, 1,841.6 cu.yd. Class A and 102.2 cu.yd. Class B concrete, 179,631 lb. reinforcing steel, (39,058 cu.yd. gravel to be furnished by county); (2) 12.56 mi. State Highway 2 A from Alvarado to Burleson Co. line, Federal Aid Project 181, involving 69,931 cu.yd. borrow and 1,538 cu.yd. loose and solid rock excav., 32,228 cu.yd. roadway excav., 1,873.9 cu.yd. Class A and 167.2 cu.yd. Class B concrete, 180,492 lb. reinforcing steel, (40,099 cu.yd. gravel to be furnished by county); from Womack Constr. Co., Sherman, (1) $169,503, (2) $196,266; E. W. Moore Constr. Co., and E. Shelton, c/o E. Shelton, Temple, (1) $172,279, (2) $193,663; McCollum Constr. Co. and W. P. McCoy, 224 Texas State Bank Bldg., Ft. Worth, (1) $174,996, (2) $198,581.

★Tex., Wichita Falls—City let contract surfacing 0.34 mi. Indiana St. from 6th to Front Sts., 60 ft. wide, concrete, to L. E. Whitham & Co., Wichita Falls, $53,909; paving 0.73 mi. 15th St. from Lamar to Grace Sts., 36 ft. wide, uvalde rock asphalt, to Roberts Bros. Constr. Co., Wichita Falls, $73,615; paving, grading, curbing, etc., 0.45 mi. Ohio St. from Front to 6th Sts., 40 and 50 ft. wide, concrete, to Plains Paving Co., 920 Amer. Natl. Bank Bldg., $54,768. Noted June 7.

★Utah, Salt Lake City—City let contract paving 0.9 mi. 7th St. E. from 21st St. S. to 27th St., S., 7 in. concrete, to Ryeberg Bros., Kearns Bldg., $48,501. Noted April 28.

★California—State Highway Comn., Forum Bldg., Sacramento, let contract paving 8.3 mi. state highway between Bishop and Round Valley Rd., Inyo Co., bituminous macadam, to A. J. Grier, Oakland; grading 11.7 mi. between southeast corner Sect. 33, T. 8 S. and Bishop Inyo Co., to Nevada Contg. Co., Fallon, Nev. Noted June 23.

★Cal., San Diego—City let contract paving 104,240 sq.ft. Texas St., between University Ave. and Balboa Park, asphaltic oil and rock screenings wearing surface on asphaltic concrete base, to G. R. Daley, McNeece Bldg., $30,285.

★Quebec—Provincial Government, Quebec, let contracts building 14 mi. bituminous macadam road in parishes of Longueuil, St. Hubert, Chambly and Chambly Basin, also 22 mi. waterbound macadam and concrete pavements in villages of Oxford, Magog, East Bolton, South Stukely, Shefford, St. Mair de Monnoir, and Potre Dame du Bon Secours, to P. Lyall Constr. Co., Transportation Bldg., Montreal, $410,000 and $609,000 respectively.

★Que., Montreal—City let contract paving about 2 mi. Cote de Neiges Rd. from Queen Mary to Namur Sts., to Quinlan, Robertson & Janin Co., 50 Notre Dame St. W., $173,328.

★Ont., Bowmanville—Town let contract for 18,900 sq.yd. bithulithic pavement on concrete base, and 2,412 lin.ft. 8 in. storm sewer in King and Liberty Sts., to Warren Bituminous Paving Co., 54 University Ave., Toronto. About $70,000. Noted June 2.

★Ont., Chatham—Kent Co. Rd. Assn. let contracts building 5½ mi. concrete highway, to W. N. McCoy, Wallaceburg; 2 mi., to Cadwell Sand & Gravel Co., Windsor. About $225,000. Prices wanted on cement.

★Ont., Glencoe—Town let contract paving Main St., concrete, to Archibald Constr. Co., Glencoe. About $30,000. Prices wanted on cement.

★Ont., St. Catherines—City let contract for 8,500 sq.yd. 6-8 in. concrete pavement, to Archibald Constr. o., 122 Delaware Ave., Toronto; 30,000 sq.yd. concrete base with curb and gutter, to Nicholson & McNamara, 25 Duke St., (asphalt surfacing will be done by day labor); 40,000 sq.ft. concrete sidewalks, to C. H. Rymer, 19 Wolseley Ave.

★Ont., Sandwich—Town let contract to S. P. West, Sandwich, paving California Ave., Indian Rd., Brock, Edison and Cross Sts., Brock St. from Peter St. to Bloomfield Rd., South St. from Sandwich St. to Bloomfield Rd., involving 8,100 cu.yd. excav., 10,590 lin.ft. concrete curbing, 16,207 sq.yd. concrete pavement; to Webster Constr. Co., Bank of Toronto Bldg., London, building 800 ft. 8 in. tile sewer in Brock St. from Peter St. to Bloomfield Rd. Total cost $87,500.

★Ont., Whitby—Town let contract building 15,000 sq.yd. bitulithic pavement, also storm sewers, to Warren Bituminous Paving Co., 54 University Ave., Toronto, $75,000 and $10,000 respectively.

Railways

BIDS DESIRED

Minnesota—Until July 30, by W. A. Clark, ch. engr. Duluth & Iron R.R., Duluth, building spur line from McComber mine, Vermillion Range to LaRue Iron mine, to connect with Duluth & Iron R.R., for Chippewa Iron Mining Co.

Excavation and Dredging

PROPOSED WORK

Ia., Forest City — Drainage — Winnebago Co. soon receives bids building D.D. 98, involving 63,312 lin.ft. 6-42 in. hard burned clay, vitr. and cement tile. About $60,000. R. B. Gunn, Forest City, engr.

BIDS DESIRED

Ill., Garrett—Ditch—Until July 19, by W. E. Price, engr., Tuscola, constructing drainage ditch, for Garrett Twp. About $55,000.

Wis., Phillips—Ditch—Until July 25, by Price Co. Farm Drainage Bd., building 2¾ mi. open ditch and ¾ mi. 10-12 in. tile drains. L. H. Schindler, 721 Clark St., Appleton, engr. Noted Dec. 30.

Minn., Aitkin—Ditch—Until July 22, by Aitkin Co., constructing 7 mi. Ditch 33, involving 10 acres clearing, 1,000 ft. road leveling, 36 in. 32 ft. corrugated steel culverts, cost $11,361; Ditch 36, 158,636 cu.yd. excav., 64 acres clearing, 3 mi. leveling waste bank, 6 timber bridges, etc., $32,293.

Miss., Cleveland—Canal—Until July 26, by Bd. Drainage Comrs. of Northern D.D., Bolivar Co., at office of W. W. Boone, civil engr., Cleveland, building 13 mi. drainage canal on Bradford Bayou. 4 mi. west of Merrigold, involving 255,000 cu.yd. earth.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★B. C., Cloverdale—Dredging, etc.—Municipality of Surrey let contract dredging and dyking on upper Serpentine River, to H. B. Sullivan & Co., 47 Albert Crescent, New Westminster, $34,400.

Industrial Works

PROPOSED WORK

Mass., Springfield—O. P. Thompson, 145 State St., having plans prepared by R. B. Warner, archt., 168 Bridge St., for 8 story, 100 x 190 ft. rein.-con. garage and repair shop, on Dwight St. About $700,000.

Conn., Hartford—"See Buildings."

N. Y., New York—City soon receives bids building 1 story, brick and concrete garage, rein.-con. flooring, concrete foundation, on Pike Slip between Front and Water Sts. About $45,000. J. B. Maher, 431 West 14th St., archt. and engr.

Pa., Johnstown—Terminal Warehouse Co., Johnstown, having plans prepared by W. Steele & Sons, engrs. 16th and Arch Sts., Phila., for 5 story, 132 x 250 ft. rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation. About $500,000.

Pa., Pittsburgh—B. Tucksinger, c/o C. J. Rieger & Co., archts., Germania Bank Bldg., having plans prepared for 2 story, concrete, brick and steel garage on Perrysville Rd. About $40,000.

O., Coventry—C. Palmer, 7 South Forge St., Akron, plans to build match factory, here. About $1,000,000.

O., Dayton—Refiners Oil Co., 315 South Main St., having plans prepared by Gebhart & Schaeffer, archts., 1402 U. B. Bldg., for 2 story, 100 x 150 ft., mixing plant and laboratory, rein.-con. and brick, rein.-con. flooring, on Perry St. About $50,000.

O., Lowell—City of Marietta plans election in August to vote on $500,000 bonds to build hydro-electric plant, here. H. Gamper, New 1st Natl. Bldg., Columbus, engr.

O., Martins Ferry—City having preliminary sketches made by H. Gamper, engr., New 1st Natl. Bank Bldg., Columbus, for electrical plant along Ohio River. About $500,000.

Mich., Ecorse—Hinkley Motors Corp., 3420 West Fort Blvd., Detroit, having plans prepared by A. Kahn, archt., 1000 Marquette Bldg., Detroit, for 1 story, 250 x 340 ft. concrete, brick and steel factory and office building, also 1 story, 52 x 60 ft. steel and timber power house, on Cicotte Ave.

Ill., Chicago—Northern Bank Note Co., 538 South Clark St., had plans prepared by H. C. Miller, archt., 112 West Adams St., for 3 story, 120 x 260 ft. rein.-con. and brick plant, rein.-con. flooring, concrete foundation at 2334 South Racine Ave. About $200,000.

Ill., Chicago—Tooker Storage & Forwarding Co., 1400 South Clark St., having plans prepared by G. C. Nimmons & Co., archts., 122 South Michigan Blvd., for 6 story, rein.-con. and brick warehouse, rein.-con. flooring, concrete foundation, on Lumber St. along Chicago River. About $500,000.

Ill., Herrin—Illinois Central R.R., 135 East 11th St., Chicago, having plans prepared by D. T. McLaughlin, archt., 109 12th St., Chicago, for 1 story, brick and steel repair shop, here. About $60,000. C. H. Markham, pres.

Wis., Edgerton—Highway Trailer Co. plans to rebuild 1 story, 180 x 900 ft. concrete and steel assembling plant, concrete foundation, which was recently destroyed by fire. About 200,000. Architect not selected.

Wis., Milwaukee—City having plans prepared by T. C. Hatton, engr., c/o Sewerage Comn., for concrete and pile foundation for 70 x 160 ft. steel and brick boiler house, rein.-con. flooring, on Jones Island. About $175,000. Noted June 16 under "Miscellaneous."

Wis., Milwaukee—Marquette University, 1115 Grand Ave., having preliminary plans prepared by E. Brielmaier & Sons, engrs. and archts., 432 Bway., for brick, concrete and steel power plant.

Ia., Clinton—Chicago & Northwestern R.R., 399 West Jackson Blvd., Chicago, having plans prepared for 2 story ice plant, rein.-con. and brick, here. About $50,000. Private plans.

Ia., Corning—City voted $60,000 bonds to build electric light and power plant. W. C. Chubb, clk. Engineer not announced. Noted Feb. 24.

Mo., Linn Creek—J. B. Ouigler, Lebanon, plans to build power plant and dam, across Niaggua River, here. About $100,000. Engineer not selected.

Mo., Moberly—Centenial Bank & Supply Co. plans to build 1 story, brick and steel factory. About $50,000. Architect not selected.

Mo., St. Joseph—Central West Grease Co., 212 North 5th St., plans to build 2 story, brick, stone and steel factory. About $50,000. A. B. Snoddy, pres. Architect not selected.

Mo., St. Louis—Woodward & Tierman Printing Co., 309 North 3rd., plans to build 2 and 3 story, brick and steel factory, on Tower Grove along tracks of Missouri Pacific R.R. About $1,000,000. Architect not selected.

Mo., University City—W. F. Williamson Advertising Co., 6501 Delmar Blvd., plans to build 1 and 2 story, 200 x 300 ft., brick, stone and steel factory, on Maple and Olive Sts. About $100,000. Architect not selected.

Okla., Oklahoma City—C. Booth & Bentley Co., 701 Main St., plans ot build 2 story planing mill, brick and steel. About $500,000. Architect not selected.

Que., Iberville—Rapid Tool Co. Ltd. soon receives bids building 73 x 100 ft. brick and steel factory, concrete foundation, on Principle St., to replace one recently destroyed by fire. About $110,000. Architect not selected.

BIDS DESIRED

Conn., Hartford—Until July 19, by Bd. Health and Charity Depts., building 2 story, 43 x 63 ft. brick and concrete heating plant and laundry, two 68 x 204 ft. concrete tunnels and 1 story, 25 x 65 ft. concrete coal bunker, on Holcomb St. About $80,000. Whiton & McMahon, 36 Pearl St., archts. R. D. Kimball Co., 6 Beacon St., Boston, engrs. Noted March 17.

O., Cleveland—H. C. Bishop & Co., archts., Guardian Bldg., receiving bids building 1 story, 40 x 75 ft., brick and steel power plant, brick foundation, on Cedar Ave., for Telling-Belle-Vernon Co., 3825 Cedar Ave. About $50,000. Noted April 7.

Ill., Chicago—A. S. Alschuler, archt., 28 East Jackson Blvd., receiving bids building 12 story, 45 x 120 ft. brick and steel addition to factory, rein.-con. flooring, concrete foundation, on Wells and Harrison Sts., for M. Born & Co., 340 South Wells St. About $750,000.

Wis., Madison—3-F Laundry Co., 731 East Dayton St., and F. L. Kronenberg, archt., Slichter Bldg., receiving bids building 2 story, 30 x 65 ft. and 17 x 24 ft. addition to laundry, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $40,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. H., Epping—Overland Shoe Co. will build 1 story, 40 x 300 ft. mill construction plant, concrete foundation. About $40,000. Work will be done by day labor under supervision of J. A. Tuck, archt., 34 School St., Boston.

★Mass., Brookline (Boston P. O.)—Gorfinkle & Barkin let contract building 1 story, 150 x 175 ft. brick garage, on Harvard St., to N. Hurwitz, Old South Bldg., Boston. About $100,000. Noted June 30.

★Mass., Framingham—Lake View Press let contract building 2 story, 52 x 141 ft. brick plant, concrete foundation, to L. Rockeford & Son, 44 Front St., Worcester. About $45,000.

★Mass., Lawrence—D. Brown Co., Market St., let contract building 2 story, 40 x 100 ft. mill construction addition to factory, on Foster St., to E. W. Pitman Co., Bay State Bldg. About $40,000.

★Conn., East Hartford (Hartford P.O.)—H. E. Bidwell, Hockanum, let contract building 1 story, brick and rein.-con. garage, rein.-con. flooring, concrete foundation, on Connecticut Blvd., to W. J. Sexton Co., 847 Main St., Hartford. About $45,000.

★Conn., Rockville—Rockville Grain & Coal Co., 95 Brooklyn St., will build 1 story, 60 x 105 ft. mill construction warehouse, rein.-con. flooring, concrete foundation. Work will be done by day labor. Dunkelberger & Gelman, 721 Main St., Hartford, archts.

★Conn., Torrington—A. W. Pickett Co., Railroad Ave., let contract building 3 story, 101 x 123 ft. rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on Litchfield St., to Torrington Bldg. Co., 197 Water St. About $100,000. Noted June 16.

★N. Y., Brooklyn—M. Cohn & Co., Inc., 218 West 26th St., New York City, let general contract building 3 story, brick, steel and concrete factory, rein.-con. flooring, concrete foundation, on Evergreen Ave. and Cook St., here, to White Constr. Co., Inc., 95 Madison Ave., New York City. Total cost $200,000. Work will be done under supervision of R. G. and W. M. Cory, engrs. and archts., 50 Church St., New York City. Noted July 7.

★N. Y., Brooklyn—Cushman Sons, Inc., 49 Manhattan St., let contract building 4 story, 50 x 200 ft., brick, steel and concrete bakery, rein.-con. flooring, concrete foundation, on Atlantic Ave. near Troy Ave., to Levering & Garrigues, 552 West 23rd St., New York City. About $250,000.

★N. Y., Brooklyn—Erie Dyeing & Processing Co., 2765 East 55th St., let contract building 1 story, brick, steel and concrete plant, rein.-con. flooring, brick and concrete foundation on Nassau Ave. near East 14th St., to H. K. Ferguson Co., 6523 Euclid Ave., Cleveland. About $150,000. Noted June 16.

★N. Y., Brooklyn—Radella Co., Inc., c/o Burke & Olsen, archts. and engrs., 32 Court St., will build 1 story, 200 x 200 ft., brick, steel and concrete garage, rein.-con. flooring, concrete foundation, on Empire Blvd. and Cedar Pl. About $65,000. Work will be done by day labor.

★N. Y., New York—One Hundred Nineteen West 145th St. Garage Corp., c/o L. A. Sheinart, archt. and engr., 194 Bowery, will build 1 story, 100 x 175 ft., brick, steel and concrete garage, rein.-con. flooring,

Industrial **Works (Continued)**

concrete foundation, at 119 West 145th St. About $75,000. Work will be done by day labor.

★**N. J., East Orange**—C. B. Comstock, archt. and engr., 110 West 40th St., New York City, let contract to J. W. Ferguson Co., United Bank Bldg., Paterson, building 5 story, brick, steel and concrete bakery and garage, rein.-con. flooring, concrete foundation, here, for Ward Baking Co., Southern Blvd., New York City. About $500,000. Noted June 16.

★**Pa., Pittsburgh**—Crane Co., South Michigan Ave., Chicago, let contract building 6 story, 70 x 192 ft. warehouse and foundations for 1 and 2 story, 192 x 292 ft. pipe shops, brick and steel, on 24th St. and Allegheny Valley R.R., to Bates & Rogers Constr. Co., 37 West Van Buren St., Chicago. Cost between $500,000 and $600,000. Noted Mar. 24.

★**O., Piqua**—Orr Felt & Blanket Co. let contract building 4 story, 100 x 200 ft., brick and concrete factory, to J. H. and C. P. Anderson, Piqua. About $185,000.

★**Mich., Adrian**—Utility Compressor Co., 1161 East Harper Ave., Detroit, let contract building 1 story, 50 x 240 ft. and 50 x 50 ft. brick and steel factory, rein.-con. flooring, concrete foundation, on Treat St., here, to DeLisle & Cooper 402 Ford Bldg., Detroit. About $40,000. Noted May 12.

★**Wis., Kaukauna**—P. H. Pagel Auto Co. let contract building 1 story, 62 x 75 ft., concrete, tile and steel garage, concrete foundation, to Appleton Constr. Co., College Ave., Appleton. About $40,000. Noted June 30.

★**Ia., Bellevue**—H. G. Johnson Piano Co, will build 1 story, 80 x 600 ft. brick and steel actory. About $100,000. Work will be done by day labor.

★**Minn., Minneapolis**—L. C. Apt. Investment Co., 225 Marquette Ave., let contract building 2 story, 100 x 105 ft. garage, rein.-con. and brick at 1901 Nicollet Ave., to J. A. Johnson Co., 115 South 6th St. About $40,000.

★**Minn., Minneapolis**—Kremer Motor Co., 1518 Hennepin Ave., let general contract building 2 story, 50 x 150 ft., concrete and brick garage at 1411 Yale Place, to Bracker Constr. Co., 638 Builders Exch. Bldg., $35,342. Noted May 5.

★**Kan., Lawrence**—State Bd. Administration, Topeka, let contract building 2 story, 120 x 180 ft. power house, to Collins Bros., 536 Rialto Bldg., Kansas City, Mo. About $100,000. Noted June 16.

★**Mo., Kansass City** — J. W. Flanagan Constr. Co., 2836 Benton St., will build 1 story, 50 x 135 ft., rein.-con. and brick factory at 2621 McGee Trafflew. About $55,000. Work will be done by day labor.

★**Mo., St. Louis**—O. J. Popp, archt., Odd Fellows Bldg., let contract to Kremer & Voirol Constr. Co., Century Bldg., constructing 1 and 2 story, 100 x 150 ft., brick factory, concrete flooring, on Chouteau St. and Spring Ave., for Usona Mfg. Co., 226 South 18th St. Noted June 9.

Buildings

PROPOSED WORK

Me., Auburn—High School—City plans to build 2 story, fireproof. About $150,000. H. H. Randall, supt. Architect not selected.

Mass., Holyoke—Church—Perpetual Help Roman Catholic Church, 51 Fountain St., having revised plans prepared by L. J. Caron, archt., Nicolet, Que., Canada, for 2 story, 70 x 184 ft. brick, stone and steel, on Elm, Chestnut and Hampshire Sts. About $150,000. Noted March 17.

Mass., Springfield—Church—All Saints Episcopal Church, Forest Park, plans to reconstruct and build addition to church. About $150,000. Architect not selected.

Mass., Ware—School and Hall—St. Marys Roman Catholic Church, Church St., plans to build 3 story, steel and concrete. About $150,000. Architect not selected.

Mass., Williamstown — Memorial — Town having plans prepared by Harding & Seaver, archts., 7 North St., Pittsfield, for 2 story, brick and stone, on Main St. About $150,000. F. E. Moore, chn.

Mass., Worcester—Store and Office—Sawyer Associates, 66 Lincoln St., had plans prepared by J. D. Leland & Co., archts., 406 Main St., for 3 story, 70 x 100 ft. brick and steel, on Main and Federal Sts. About $150,000. Concrete foundation, let to Keefe Bros., 98 Front St., $17,000. Noted Feb. 3.

Conn., Hamden — School — Bd. School Comrs. plans to build 2 story additions to schools. About $200,000. Architect not selected.

Conn., Hartford—School—Hartford Seminary Foundation, 1507 Broad St., having preliminary plans prepared by Day & Klauder, archts., 925 Chestnut St., Phila., for dormitory, seminary addition, chapel and power house, on Girard Ave. and Sherman St. About $1,000,000.

Conn., Norwich—Ward—Norwich State Hospital for Insane plans to build 2 story, brick and concrete. About $250,000. Architect not selected.

Conn., Wallingford — Business and Theatre—J. R. Hayes, 154 Center St., having plans prepared by F. C. Waiz, archt., 407 Trumbull St., Hartford, for 1 and 3 story, brick, concrete and steel, on Main St. About $150,000.

N. Y., Lancaster — High School — Bd. Educ. having plans prepared by M. C. Miller, archt., 80 West Genessee St., Buffalo, for high school, modern fireproof construction. About $250,000.

N. Y., New York — Apartment — Ezra Holding Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., soon receives bids building 6 story, 100 x 100 ft., briek, steel and stone, concrete foundation, on Grand Concourse and Fordham Rd., Bronx. About $250,000.

N. Y., New York—Apartments—F. Johnson, 30 East 42nd St., soon receives bids building two 6 story, 90 x 100 ft., brick, steel and stone, concrete foundations, on Southern Blvd. near Longwood Ave., Bronx. About $175,000 each. C. Kreymborg, 2534 Marion Ave., archt. and engr.

N. Y., New York — Apartment — West 190th St. Corp., c/o Moore & Landseidel, archt. and engrs., 3d Ave. and 148th St., having plans prepared for 6 story, brick, steel and stone, concrete foundation, on Montgomery Ave. About $200,000.

N. J., Camden—School—Bd. Educ., City Hall, having preliminary plans prepared by P. A. Davis, 3d archt., 1713 Sansom St., Phila., for brick, on Ephriam Ave. and Jackson St. About $190,000.

N. J., Hammonton—High School—Bd. Educ. having plans prepared by H. A. Hill, archt., 40 East State St., Trenton, for 2 story, brick, concrete and steel, rein.-con. flooring, concrete foundation. About $200,000.

N. J., Trenton—High School—Bd. Educ., 9 South Stockton St., having plans prepared for 2 story. About $500,000. W. Poland, business mgr. Private plans.

O., Cleveland — Hospital — Blvd. Hospital & Clinic, c/o A. B. Spurney, Osborn Bldg., having plans prepared by F. D. Skeel, archt., 71st St. Bldg., for 3 story, brick, concrete and steel, rein.-con. flooring, brick and concrete foundation, on East Blvd. and Shaker Rd. About $200,000.

O., Clintonville — School—Bd. Educ., Columbus, having plans prepared by D. H. Smith, archt., Town and High Sts., Columbus, for 2 story, 110 x 180 ft., brick, steel and concrete, here. About $175,000.

O., Columbus—Church—C. A. McAllister, chn. building com., 538 Kresge Bldg., opens bids about July 20, building 2 story, 60 x 90 ft., brick, steel, concrete and stone addition, on East Broad St., for Broad St. Presbyterian Church. About $175,000. Jones & Abernathy, Dispatch Annex, archt.

O., Columbus — High School — Bd. Educ. having plans prepared by Howell & Thomas, archts., 2032 Euclid Ave., Cleveland, for 2 story, on East Broad St. About $1,000,000.

O., Columbus—Schools—Bd. Educ. having plans prepared by D. H. Smith, archt., Town and High Sts., for 2 story, 130 x 170 ft., brick, concrete and steel, on Poplar Ave. About $150,000.

O., Columbus—School—Bd. Educ., Ohio Natl. Bank Bldg., having plans prepared by L. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., for 4 and 6 story, brick, steel and stone. About $1,500,000.

O., Dayton—Laboratory—See "Industrial Works".

O., Dayton — School — Bd. Educ., Van Buren Twp., having plans prepared by E. S. Mountstephen, archt., 803 U. B. Bldg., for 2 story, brick and concrete, rein.-con. flooring, concrete foundation. About $150,000.

O., Shaker Heights—High School—Bd. Educ. having plans prepared by C. W. Bates, archt., 604 Marshall Bldg., Cleveland, for 3 story, brick, concrete and steel, rein.-con. flooring, brick and concrete foundation, on Woodbury and Woodland Rds. About $400,000.

Ind., Elkhart—Bank—St. Joseph Valley Bank, 214 South Main St., having plans prepared by Hoggson Bros., archts. and engrs., 485 5th Ave., New York City, for 3 story, brick, steel and stone, on South Main and Marion Sts. About $225,000.

Mich., Detroit—Apartment—H. Silverman, 1030 Penobscot Bldg., having plans prepared by M. H. Finkel, archt., 333 Majestic Bldg., for 4 story, brick and steel, rein.-con. and wood flooring, concrete foundation, on 2nd Blvd. and Canfield St. About $250,000.

Mich., Detroit—Mercantile—E. H. Jones, 2128 Penobscot Bldg., having plans prepared by C. H. Crane, Huron Bldg., for 8 story, 38 x 60 ft. rein.con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Madison Ave. About $200,000.

Mich., Detroit — School — Van Leyen, Schilling, Keough & Reynolds, archts., 3440 Cass Ave., opens bids about July 20, building 2 story, 10 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Gratiot Ave. and Grotto Rd., for Assumption of Blessed Virgin Parish, c/o architects. About $150,000.

Mich., Detroit—Theatre—C. W. Brandt archt., 1114 Kresge Bldg., opens bids about July 18, building 2 story, 90x175 ft. rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, on Jefferson and Chopin Aves., for Cinderella Theatre Co., care of architect. About $200,000.

Mich., Redford — Church—Redford Baptist Church, c/o H. Davis, pastor, having plans prepared by Lane, Davenport & Peterson, archts., 2320 Dime Bank Bldg., Detroit, for 2 story, 150 x 200 ft., rein.-con., brick and steel, rein.-con. flooring concrete foundation, on Grand River Ave. About $150,000.

Mich., Springwells — Municipal — Village having plans prepared by M. R. Burrowes, archt., 2631 Woodward Ave., Detroit, for 2 story, 72 x 96 ft. rein.-con., brick and stone, rein.-con. flooring, concrete foundation. About $165,000. A. Des Rosiers, 630 McKerchy Bldg., Detroit, engr.

Ill., Chicago—Church and Office—University Church of Disciples, c/o H. Shaw, archt., 39 South State St., having preliminary plans prepared for 1 story, 60 x 100 ft. church and 2 story, 50 x 100 ft. office, both mill construction, concrete foundations, on East 57th St. and University Ave. About $275,000.

Ill., Chicago — Office — J. S. Miller, 38 South Dearborn St., having plans prepared by A. S. Alchuler, archt., 28 East Jackson Blvd., for 21 story, 92 x 123 ft. steel, tile, brick and terra cotta, concrete foundation, on Michigan Blvd. and Plaza. About $2,000,000.

Ill., Chicago—Theatre, Store and Office—A. Flower, c/o Roosevelt State Bank, 35th St. and Grand Blvd., having plans prepared by Z. E. Smith, 305 East 55th St. and A. Anis, 139 North Clark St., archts., for 3 story, 100 x 205 ft. brick, steel and terra cotta, on 35th St. and Grand Blvd. About $450,000.

Ill., Christopher—High School—Bd. Educ. plans to build 2 story, brick and steel. About $150,000. Architect not selected.

Ill., Harrisburg—School—Bd. Educ. having plans prepared by A. L. Barnes, archt., 37 West Van Buren St., Chicago, for 2 story, 140 x 140 ft. steel, concrete, stone and brick, rein.-con. flooring, concrete foundation. About $300,000. Noted March 10.

Buildings (Continued)

Ill., Streator—High School—Bd. Educ. having plans prepared by A. L. Pillsbury, archt., Peoples Bank Bldg., Bloomington, for 2 story, 73 x 125 ft. brick, concrete and steel. About $150,000. H. Fisher, supt.

Ill., West Frankford—Bank—West Frankfort Bank & Trust Co. having plans prepared by Weary & Alford, archts., 1732 South Michigan Ave., Chicago, for 2 story, 42 x 109 ft. brick, stone, marble and steel. About $150,000.

Wis., Three Lakes — High School — Bd. Educ. having plans prepared by Oppenhamer & Obel, archts., Wausau, for 2 story, 62 x 100 ft. brick and concrete, rein.-con. flooring, concrete foundation. Cost between $125,000 and $150,000.

Wis., Watertown — Hotel — Chamber of Commerce having plans prepared by G. F. Keck, archt., 67 East Oak St., Chicago, for hotel, fireproof construction. About $300,000.

Ia., Des Moines—Bank and Office—Iowa Natl. Bank, c/o H. A. Miller, pres., Fleming Bldg., having plans prepared by Boyd & Moore, archts., 1020 West Grand Ave., remodeling Citizens Natl. Bank Bldg., on 6th and Walnut Sts., 7 story, Bedford stone, rein.-con. and steel, rein.-con. flooring. About $300,000.

Ia., Dubuque—Bank and Office—Federal Deposit & Trust Co., 972 Main St., plans to build 8 story, rein.-con., brick and steel. About $300,000. R. Walker, cashier. Architect not selected.

Minn., Hibbing—Hotel—M. J. Moran, prop. Oliver Hotel, plans to build 3 story, 100 x 140 ft. tile and brick, rein.-con. flooring, on 3rd St. About $300,000. Architect not selected.

Minn., St. Cloud—Armory—City defeated $75,000 bonds to build 2 story armory. Noted June 16.

Kan., Wichita—High School—Bd. Educ. having plans prepared by Lorentz, Schmidt & Co., archts., 121 North Market St., for 3 story, rein.-con., brick and steel. About $1,000,000.

S. D., Canton—High School—City voted $165,000 bonds to build 2 story, rein.-con., brick, tile and stone. I. A. Opstad, supt. Bd. Educ. Architect not announced.

S. D. Huron—Hospital—Beadle Co. plans to build 3 or 4 story, rein.-con., brick, tile and stone. About $150,000. H. W. Gardner, aud. Architect not selected.

N. D., Lakota—Court House—Nelson Co. plans to build 3 or 4 story, rein.-con., brick, tile and stone. About $200,000. H. Telander, aud. Architect not selected.

Mo., Cape Girardau—Hall—State Teachers College plans to build 2 story, brick and stone. About $150,000. W. S. Dearmont, pres. Architect not selected.

Mo., Columbia—Church—First Christian Church plans to build 1 story, brick and stone. About $150,000. Architect not selected.

Mo., Columbia—Student Service—Episcopal Church congregation plans to build 2 story, rein.-con., brick and stone. About $150,000. W. L. George, pastor. Architect not selected.

Mo., Kansas City—Apartment Hotel—C. O. Jones, Commerce Bldg., having plans prepared for 4 story, 46 x 132 ft. brick, stone and steel, on 42nd and Locust Sts. About $150,000. Architect's name withheld.

Mo., Kansas City — Memorial — Liberty Memorial Assn. having plans prepared by H. V. Magonigle, archt., 101 Park Ave., New York City, for rein.-con. and stone, opposite Union Sta. About $2,000,000. J. E. McPherson, 9 West 11th St., secy.

Mo., St. Louis — Bank — Federal Reserve Bank, Bway. and Pine St., having plans prepared by Mauran-Russell & Crowell, archts., Chemical Bldg., for 10 and 14 story, rein.-con., stone and steel, on Locust St. and Bway. About $2,000,000.

Mo., St. Louis — Church — First United Presbyterian Church, c/o W. A. Johnson, chn., 3643 Folsom Ave., having plans prepared by J. H. Senne, archt. and engr., Central Natl. Bank Bldg., for 1 story, brick and stone, on Washington and Adelaide Aves. About $150,000. Noted March 24.

Mo., St. Louis—Hotel—C. Ulman, 4540 Lindell St., having plans prepared by W. J. Knight Eng. Co., engrs., Wainwright Bldg., for 8 story, 195 x 230 ft., rein.con., brick and terra cotta, on Kings highway and Lindell St. About $4,000,000.

Mo., Springfield—Hospital—City plans to build brick hospital. About $175,000. Address M. D. Lightfoot, Springfield, pres. Green Co. Health Assn. Architect not selected.

Tex., Abilene—Hospital—Baptist Church plans to build hospital. About $200,000. Address Bd. Trustees, Simmons College, Abilene.

Tex., San Antonio—Hotel and Lodge—I. O. O. F. Lodge opens bids about July 20, building 6 story, 53 x 75 ft., stone and brick hotel and 2 story, 53 x 75 ft., rein.-con. and brick lodge, on Crockett and Nacogdaches Sts. About $200,000. L. Harrington & Co., 607 Frost Bldg., archts.

Okla., Bartlesville — Church — Methodist Congregation plans to build church on Johnstone St. About $250,000. C. C. Cockerill, pastor. Architect not selected.

Okla., Cushing — Church — Christian Church having plans prepared by J. O. Bradley, archt., Pawhuska, for 2 story, brick, steel and stone. About $150,000.

Okla., Pawhuska—School—Bd. Educ. having plans prepared by A. J. Love & Co., archts., Pawhuska, for 2 story, 77 x 135 ft., brick, stone and steel. About $150,000.

Que., Montreal—Theatre—United Amusements Co., 424 St. Catharine St. W., plans to build 100 x 125 ft. on Park Ave. and Bernard St. About $275,000. Architect not selected.

Ont., St. Catharines — Collegiate — Bd. Educ. plans to build 3 story, 20 room, concrete, brick and steel on Geneva St. About $600,000. C. A. McBride, 13 Welland Ave., secy. Architect not selected.

Ont., St. Thomas — School — Bd. Educ. plans to build brick and stone technical school on Talbot St. About $350,000. Prices wanted on all materials. Architect not selected.

Ont., Toronto—Hotel—Northern Hotels Co. Ltd., Massop Hotel, had sketches made by Molesworth, West & Secord, archts., 43 Victoria St., for 15 story, 150 room, rein.-con., brick and steel, concrete foundation, on Yonge St. About $500,000.

BIDS DESIRED

Mass., Westborough—Wards—Until July 21, by Dept. Mental Diseases, W. A. Merrill, business agt., Room 109 E. State House, Boston, altering male wards at hospital, here. Kendall, Taylor & Co., 142 Berkeley St., Boston, archts.; advertised in this issue.

Conn., Warehouse Point—Home—Hartford Co. Home receiving bids constructing 1 story, 40 x 60 ft. brick and steel dining building, two 2 story, 40 x 150 ft. dormitories and two 1 story, 36 x 65 ft. frame structures. Cost between $150,000 and $200,000. M. J. Unkelbach, 162 Main St., New Britain, archt. Noted June 30.

N. Y., Kew Gardens (Jamaica P. O.)—Apartment—Kew Court Corp., c/o L. V. V. Sweezy, archt. and engr., Bible House, New York City, will build 4 story, 125 x 200 ft. brick, steel and stone, concrete foundation, on Metropolitan Ave. About $300,000. Work will be done by separate contract under supervision of architect.

N. Y., Middletown—Hospital—Until Aug. 3, by State Hospital Comn., Capitol, Albany, for construction, heating, sanitary and electric work, kitchen building and connecting corridor, additional accommodations for chronic patients (east group), at State Homeopathic Hospital, here. E. S. Elwood, secy. L. F. Pilcher, Capitol, Albany, state archt.; advertised in this issue.

N. J., Jersey City—Orphanage—Until July 16, by W. Neumann, archt. and engr., 314 Palisade Ave., building brick, steel and stone, concrete foundation, for St. Josephs Orphanage, c/o architect. About $500,000.

Pa., Harrisburg—High School—Until July 22, by D. D. Hammelbaugh, secy. School Dist., 121-123 Chestnut St., building 3 story, 80 x 90 ft., brick and steel on Green and Forster Sts. About $150,000. [illegible] H. Lloyd, Telegraph Bldg., archt.

Pa., Uniontown—Hospital—Until July 26, by Uniontown Hospital Assn., building 3 story, 36 x 38 ft. and 38 x 168 ft. brick and steel, rein.-con. flooring. About $150,000. H. W. Altman, Uniontown, archt.

Va., Portsmouth—Jail—Until July 18, by city, building new jail. J. P. Jervey, city mgr.; advertised in this issue.

Miss., Magee—Infirmary, etc.—Until Aug. 8, by State Bond Impvt. Comn., at office of T. C. Link, superv. Archt., Dir. Pub. Wks., P. O. Box 636, Magee, constructing 1 nurses home, 1 white and 1 negro infirmary, 1 service building, 1 recreation building, 1 power house and 1 laundry at tuberculosis sanatorium, near here.

O., Ashville—School—Until Aug. 11, by Bd. Educ. Walnut Twp. building 2 story, 75 x 112 ft., brick and concrete. About $175,000. O. D. Howard, 8 East Broad St., Columbus, archt.

O., Cleveland—Library—Until July 22, by Cleveland Pub. Library Bd., Kinney Levan Bldg., constructing 1 story, 87 x 166 ft., brick, concrete and steel, on East 55th St. and Bway. About $150,000 Walker & Weeks, 1900 Euclid Ave., archts

O., Fairview—School—Until July 28, by Bd. Educ., building 2 story, brick, concrete and steel, rein.-con. flooring, brick and concrete foundation. About $150,000. H. O. Wurmser, Lorain, archt.

O., Lakewood (Cleveland P. O.)—Bank—G. B. Bohm, archt., Williamson Bldg., Cleveland, receiving bids building 2 story, 35 x 86 ft. brick and stone, brick foundation, on Detroit Ave., here, for Depositors Saving & Loan Co., 11735 Detroit Ave. About $150,000.

Ind., Paoli—Sanitarium—Until July 18, by Architectural Industrial Development & Impvt. Co., 118 North La Salle St., Chicago, building 4 and 5 story, 200 x 350 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation, for Paoli Springs Hotel Co.

Mich., Detroit—Apartment and Store—Bonnah & Chaffee, archts., 528 Farwell Bldg., receiving bids building 4 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Hamilton Blvd., for L. Schmied, 1440 Seyburn Ave. About $150,000.

Mich., Ironwood—Memorial—Until Aug. 9, by City, care of C. Seaman, clk., building 2 story, rein.-con., brick and tile. About $150,000. Bell & Kinports, 1624 Hennepin Ave., Minneapolis, Minn., archts. Noted Mar. 31.

Ill., Joliet—High School—Until July 19, by Bd. Educ. and D. H. Burnham & Co., archts., 209 La Salle St., Chicago, building 3 story, 228 x 240 ft. brick, stone and steel, concrete foundation. About $300,000. Noted June 3.

Ill., Toulon—School—Until July 19, by Bd. Educ. and Hewitt & Emerson, archts., 321 Main St., Peoria, building 2 story, brick, stone, rein.-con. and steel. About $150,000. J. A. Newlan, secy.

Wis., Milwaukee—Apartment—Until July 18, by M. Tullgren & Sons, archts. and owners, 425 East Water St., building 7 story, 62 x 70 x 80 ft. brick and concrete, rein.-con. flooring, concrete foundation, at 6 Prospect Ave. About $300,000. Noted July 7.

Wis., Shorewood (Milwaukee P. O.)—High School—Until July 25, by School Bd., building 2 story addition and central heating plant, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Atwater Rd. About $225,000. J. E. Williams, clk. R. Messner & Bro., 221 Grand Ave., archts. Noted April 7.

Minn., Faribault—Hospital—Until July 20, by St. Lucas Hospital building 4 story, 44 x 101 ft., rein.-con., brick, tile and stone. About $150,000. Schippel & Schmidt, Kruse Bldg., Mankato, archts. Noted Feb. 10.

Minn., Virginia—School—Until July 26, by Bd. Educ., building 3 story, rein.-con., brick, tile and stone. About $300,000. R. J. McGhee, clk. Kelly & Schefchik, 1006 Alworth Bldg., Duluth, archts. Noted Nov. 11.

Kan., Topeka—School—Until July 19, by State Bd. Administration, Topeka, building 2 story, 56 x 92 ft. with 2 wings, brick and stone. About $150,000. R. L. Gamble, Capitol Bldg., Topeka, state archt.

Buildings (Continued)

Neb., Omaha—High School—Until July 28, by Bd. Educ., City Hall, building 4 story, 210 x 240 ft., rein.-con. and stone, on Burt, Cumings, 30th and 33rd Sts. About $2,000,000. W. E. Burke, secy. F. W. and E. Clarke, 640 Paxton Blk., archts.

Mo., Kansas City—Assembly Hall, etc.—Until July 19, by Boys Hotel, c/o A. O. Thompson, 18th and Waldrond Sts., building 4 story, 44 x 89 ft., brick, stone, steel and terra cotta assembly hall and swimming pool, on Admiral & Vine Sts. About $150,000. C. B. Sloan, 321 East 11th St., archt.

Mo., St. Louis—Hospital—Until July 24, by C. H. Wray, archt., Rialto Bldg., constructing 6 story, 100 x 200 ft., brick, stone and concrete, on Grand St. and Shaw Ave., for Missouri Pacific R.R., c/o A. Vasterlin, California and Eads Sts. About $450,000. Noted July 7.

Mo., St. Louis—Hospital—A. B. Groves, archt., Stock Exch., receiving bids building 7 story, 160 x 280 ft. brick, stone and steel, on Belleview and Clayton Sts., for Sisters of St. Mary, 1536 Papin St. About $1,000,000. Noted March 3.

Cal., Lancaster—High School—Until July 25, by Trustees Antelope Valley Union High School Dist., constructing 2 rein.-con. schools and altering present building. About $200,000. Noted Dec. 23.

Ont., Ottawa—Hospital—Until July 21, by D. M. Finnie, chn. Hospital Bd., building 5 story, rein.-con., brick, tile and steel, rein.-con. flooring, concrete foundation, on Carling and Parkdale Aves., for city. About $2,500,000. J. A. Ewart, Jackson Bldg., and Stevens & Lee, 62 Charles St. E., Toronto, archts.

Ont., Toronto—Office—General Accident Assurance Co. of Canada, Continental Life Bldg., receiving bids building 8 or 10 story, 81 x 87 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Bay and Temperance Sts. About $300,000. F. S. Baker, 67 Yonge St., archt. Noted June 30.

Ont., Walkerton — High School — Until Aug. 1, by Ellis & Ellis, archts., Manning Chambers, Toronto, building 2 story, 10 room, rein.-con. brick and steel, concrete foundation, for School Bd. About $170,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. H., Warren—Infirmary—State Hospital Bd., State House, Concord, let contract building 2 story, 60 x 180 ft. tile and stucco, at Glencliff Station, to H. P. Cummings Constr. Co., Ware, Mass. About $150,000. Noted June 9.

★Mass., Agawam—High School—School Bldg. Com. let general contract building 2 story, 60 x 140 ft. brick and steel, concrete foundation, on Main St., to E. T. Davis & Son, 182 Lebanon St., Springfield, $176,881. Noted June 16.

Mass., Belchertown—Custodial and Dormitory—State Dept. Mental Diseases, 109 Statehouse, Boston, opened bids July 7, building 3 story, 33 x 90 ft. custodial building with two 20 x 42 ft. wings, 3 story, 33 x 89 ft. dormitory, with 21 x 33 ft. and 33 x 84 ft. wings, both brick, and 2 tile and stucco cottages, from Genl. Building Co., 524 Harrison Ave., Boston, $187,000; D. Hanos, 575 Main St., Springfield, $192,503; R. H. Provencal, Ware, $196,100. Noted June 30.

★Mass., Boston—Hospital—Boston Lying-In Hospital, 24 McLean St., let contract building 4 and 5 story, 43 x 173 ft. with two 32 x 36 ft. wings, brick, on Longwood Ave., to Whiddin-Bukman Co., 80 Boylston St. About $300,000.

★Mass., Holyoke—Home—Holyoke City Hospital let contract building 3 story nurses home, brick, steel and concrete, rein.-con. flooring, concrete foundation, on Beech St., to Casper Ranger Constr. Co., 20 Bond St. About $150,000.

★Mass., Lawrence—School—City let contract building 3 story, 30 x 104 ft. with two 33 x 125 ft. wings, brick, concrete foundation, on Irving Ave., to A. D. Shufelt, 102 Cambridge St. About $175,000. Noted June 23.

★Mass., Longmeadow (Springfield P.O.)—High School—Town let contract building 2 story, 70 x 109 ft. brick and steel, rein.-con. flooring, concrete foundation, on Colton Pl., to J. G. Roy & Sons Co., 21 Silver St., Springfield. About $175,000. Noted June 23.

★Mass., Northampton—Dormitories—Bd. Trustees Smith College let contract building three 3 story 40 x 200 ft. brick, steel and concrete, rein.-con. flooring, concrete foundations, on Paradise Rd., to J. P. Keating, Westboro. About $700,000. Noted May 26.

★N. Y., Brooklyn — Apartment — Park Land Co., c/o Springsteen & Goldhammer, archts. and engrs., 32 Union Sq., New York City, will build 6 story, brick, steel and stone, concrete foundation, at 107 Eastern Parkway, here About $250,000. Work will be done by day labor.

★N. Y., Brooklyn—Apartment—A. Steinberg, c/o McCarthy & Kelly, archts. and engrs., 16 Court St., will build 4 story, brick, steel and stone, concrete foundation, on East 21st St. Work will be done by day labor.

★N. Y., Brooklyn—Apartments—Wolfman & Stolzenberg, 1043 Pacific St., will build two 5 story, brick, steel and stone, concrete foundations, on Franklin Ave. and Union St. About $150,000 each. Work will be done by day labor.

★N. Y., New York—Apartment—A. Campagna, 200 West 72nd St., will build 9 story, brick, steel and stone, concrete foundation, at 246 West 75th St. About $525,000. Work will be done by day labor. G. F. Pelham, 200 West 72nd St., archt. and engr.

★N. Y., New York—Apartment and Store—W. J. Diamond, c/o C. S. Clark, archt. and engr., 441 Tremont Ave., will build 6 story, 125 x 160 ft. brick, steel and stone, concrete foundation, at 525 West 162nd St. About $225,000. Work will be done by day labor. Noted June 30.

★N. Y., New York — Apartment — Echo Park Constr. Co., Inc., c/o Shampan & Shampan, archts. and engrs., 50 Court St., Brooklyn, will build 5 story, brick, steel and stone, concrete foundation, on Grand Concourse and Echo Pl., Bronx. About $250,000. Work will be done by day labor.

★N. Y., New York—Apartments—Jessup Realty Co., Inc., c/o C. Schaefer, archt. and engr., 394 East 150th St., will build two 5 story, brick, steel and stone, concrete foundations, on Jessup Ave. About $150,000 each. Work will be done by day labor.

★N. Y., New York—Apartment—Two Hundred Forty-Four West 74th St. Corp., 377 Bway., will build 9 story, brick, steel and stone, concrete foundation, on West 74th St. About $300,000. Work will be done yb day labor. G. F. Pelham, 200 West 72nd St., archt. and engr.

★N. Y., New York—Loft—R. H. Davis, 3 East 43rd St. let contract building 16 story, 50 x 100 ft., brick, steel and stone, concrete foundation, at 66-70 West 40th St., to Leddy & Moore, 105 West 40th St. About $500,000.

★N. Y., New York—Store—L. M. Blumstein, 230 West 125th St., let contract building 5 story brick, steel and stone addition, brick foundation, at 236 West 125th St., to C. A. Cowan, 30 East 42d St. About $1,000,000. Noted March 3.

★N. Y., New York—Theatre and Store—Bway. & Hamilton Pl. Corp., c/o H. J. Krapp, archt. and engr., 116 East 16th St., will build brick, steel and stone, concrte foundation, on 138th St. and Bway. About $600,000. Work will be done by day labor.

★N. J., Bordentown—Industrial School—State Bd. Educ., State House, Trenton, let general contract building auditorium and gymnasium, to Karno-Smith Co., Broad St. Bank Bldg., Trenton, $111,754; laundry, to J. H. Morris Co., Broad St. Bank Bldg., Trenton, $5,143.

★N. J., Newark — Clubhouse — J. Green, archt. and engr., 31 Clinton St., let contract to G. A. Fuller Co., 949 Bway., New York City, building 11 story, 100 x 150 ft., at 16 Park Pl., for Newark Athletic Club, c/o architect. About $1,000,000. Noted June 2.

★Pa., Jeanette—High School—Bd. Educ. let contract building 2 story, 125 x 225 ft. brick and steel, rein.-con. flooring, to Standard Constr. Co., 1713 Sansom St., Phila., $254,500. Noted June 23.

★Pa., Meadville—Theatre and Hotel—Meadville Theatre Corp. let contract building 1½ and 2 story, 23 x 57 ft. and 78 x 143 ft. brick and steel, rein.-con. flooring, on Chestnut St., to F. C. Danner, New Kensington. About $250,000.

★Pa., Pittsburgh—Sales—W. W. Martin Co., 5847 Center Ave., let contract constructing 3 story, 100 x 140 ft. sales and service building on Ravenna St. and South Highland Ave., to Austin Co., Union Arcade. About $150,000.

★Pa., Pottsville — Bank — Safe Deposit Bank, 211 South Centre St., let contract building 50 x 100 ft. brick, steel and stone on Centre St., to F. W. Van Loon, Perry Bldg., Phila. About $250,000.

★W. Va., Huntington—High School—Bd. Educ. let contract building 3 story on Washington Ave., to C. H. Smith, Robson-Prichard Bldg. About $195,000. Noted June 9.

★O., Alliance—Memorial—Mt. Union College let contract building 2 story, 93 x 156 ft. brick, steel and stone, brick foundation, to Austin Co., 16112 Euclid Ave., Cleveland. About $200,000. Noted Sept. 2.

O., Bedford—School—Bd. Educ. received bids June 25, building 2 story, on Bway., from Clemer & Johnson Co., 406-7 Metropolitan Bldg., Akron, $98,900*; Alexander Bros., Williamson Bldg., Cleveland, $99,473; heating work, from H. P. Cahill, Exchange St., Akron, $38,695. Noted June 9.

★O., Cleveland — Hotel — I. Margolin, 10527 Churchill Ave., let masonry contract for 5 story, 40 x 70 ft., brick, concrete and steel addition, rein.-con. flooring, brick and concrete foundation, at 3848 Prospect Ave., to I. Narosny, 476 East 112th St. Total cost $200,000.

Mich., Battle Creek—School—Bd. Educ. received bids building 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, from R. G. Phelps, Battle Creek, $266,514; S. B. Cole, Reese Rd., $284,540; O. F. Miller Kalamazoo, $292,596.

★Ill., Dundee—High School—Bd. Educ. let contract building 2 story, 175 x 175 ft. rein.-con. concrete foundation, to C Giertz & Son, Main St., Elgin. About $300,000. Noted Jan. 27.

★Ill., Jacksonville — Hospital—Poor Savlours Hospital let contract building 3 story, 60 x 85 ft. rein.-con., stone and hollow tile, to V. Jobst & Sons, Lehman Bldg., Peoria. About $150,000. Noted June 23.

★Ill., Springfield — High School — Bd. Educ. let contract building Fitzeshaus School, 2 story, 70 x 180 ft. with 65 x 90 ft. ells, brick to C. H. Schenk, 2115 South 4th St., $157,996. Noted June 16.

★Wis., Madison—High School—Bd. Educ. let contract building 3 story, 68 x 265 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation, on East Washington St., to A. D. and J. V. Frederickson, 702 East Main St., $217,997. Noted June 9.

★Wis., Rhinelander—Theatre and Office—P. Rowman, Main St., let contract building 2 story, 85 x 150 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation, to H. J. Selmer Co., McCartney Bank Bldg., Green Bay. About $150,000. Noted May 12.

Wis., Wausau—Hospita —St. Marys Hospital let contract building 4 story, rein.-con. and brick addition, rein.-con. flooring, concrete foundation, to Hutter Constr. Co., 128 Western Ave., Fond du Lac. About $200,000.

★Ia., Davenport—Temple—Masonic Lodge and Park Lane Bldg. Comn. let contract building 6 story, 150 x 160 ft. rein.-con., brick, stone, terra cotta and steel, between Brady and Main Sts., to J. Sofeor & Son Constr. Co., 337 Masonic Temple. About $1,000,000; cost plus percentage basis.

★Ia., Ft. Dodge—Office—W. F. Garver, Central Ave. S.E., and 19th St., let contract building 6 story, 70 x 140 ft., rein.-con., brick, steel and stone, on Central Ave., to C. E. Larson, Ft. Dodge. About $150,000. Noted June 9.

★Ia., Harlan—Shelby Co. let contract building 16 rein.-con. box culverts, 11 circular culverts, one 20 x 70 ft. and one 20 x 60 ft. steel pony truss bridges, one 20 x 40 I beam span, etc., on Primary Rd. 7, east of here, to F. E. March & Co., Jefferson, $47,900. Noted June 30.

Buildings (Continued)

★Ia., Vinton—High School—Bd. Educ. let contract building 3 story, 115 x 144 ft. brick and steel, to Sugarman Constr. Co., 6th and Grand Aves., Des Moines. About $200,000. Noted June 16.

★Minn., Minneapolis — Church — Minnesota Baptist Convention, 529 2d Ave., let contract building 30 x 106 x 154 ft. rein.-con., brick, tile and stone, at 1225 University Ave. S. E., to W. D. Lovell, 1415 8th St. S. E.

★Minn., Minneapolis—School and Auditorium—St. Lawrence Roman Catholic Congregation, 1121 7th St., S. E., let general contract building 2 story, 89 x 111 ft., rein.-con., brick, tile and stone, on 5th Ave. and 12th St., S. E., to Splady, Albee & Haagenson, 1022 Plymouth Bldg. About $90,000. Noted June 9.

★Kan., Lawrence—University—University of Kansas let contract building 4 story, 100 x 180 ft., to A. R. Stimson, 1516 Boswell St., Topeka. About $500,000. Noted April 28.

★Kan., Lyndon—Court House and Jail—Osago Co. let general contract building 3 story, 83 x 100 ft. and 1 story, 28 x 39 ft., concrete, steel, brick, tile and stone, to M. J. Green, Manhattan, $196,600. Noted June 9.

★Neb., Omaha—Apartment and Theater—Ames Realty Co., Natl. Bank Bldg., let contract building 3 story, 125 x 133 ft., rein.-con., brick and terra cotta, on 24th and Ames Sts., to G. W. Stiles Constr. Co., 1218 First Natl. Bank Bldg., $185,394.

N. D., Fargo — Agricultural — State Bd. Administration, Bismark, received bids June 30, building 3 story, 55 x 145 ft. rein.-con., brick, tile and stone, at State Agricultural College here, from T. F. Powers & Co., 419 8th St., N., $96,000; R. J. Cheney & Co., 716 11th Ave., Minneapolis, $103,000; Meinecke-Johnson Co., 11 Bway., $103,500. Noted June 16.

★Minn., St. Paul — Church, School and Rctory—Church of St. Mary, 393 East 9th St., let general contract building rein.-con., brick, tile and stone on East 8th St. and Rosabel St., to E. J. Dunnigan, 721 Guaranty Life Bldg. About $140,000. Noted June 9.

★Mo., St. Louis—Apartment Hotel—Thirty-Sixth St. Realty Co., 111 North 7th St., let contract building 12 story, brick and terra cotta, rein.-con. flooring, on Grand and Lindell Sts., to P. J. Bradshaw, archt., International Life Bldg. About $1,000,000. Architect builds and sublets. Noted May 19.

Tex., San Antonio—Office—Waverick Estate let contract building 15 story, 65 x 120 ft., rein.-con. and hollow tile, rein.-con. flooring, on Houston St., to C. M. Schoenfield, 324 Houston Ave. About $300,000.

★Que., Montreal—School—Catholic School Comn., 36 St. Catherine St. E., let contract building 3 story, 75 x 95 ft. concrete, brick and steel, concrete foundation, on Sherbrooke St. E., to A. Gratton, 142 5th Ave. About $167,000.

★Ont., Guelph—College—Ontario Agricultural College let contract constructing veterinary college and dairy building, 2 story, concrete, brick and steel, rein.-con. flooring, concrete foundation, to Schultz Bros., Brantford, $271,500. Noted June 2.

★Ont., Hamilton—Nurses Home—Hospital Bd. let general contract building 5 story, 45 x 175 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Barton St. E. and Euclid Ave., to W. H. Yates Constr. Co., 17 Main St. E. About $300,000. Noted July 7.

★Ont., Toronto — Skating Rink — Toronto Skating Club, Excelsior Life Bldg., let general contract building 1 story, concrete, brick and steel, concrete foundation, on Dupont St., to H. N. Dancey & Son, 22 College St. About $105,000. Noted April 28.

Federal Government Work

PROPOSED WORK

H. T., Pearl Harbor—Foundations—Spec. 4396—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids received June 29 constructing foundations for machine shop, here. Noted July 7.

BIDS DESIRED

N. Y., Iona Island—Bower Plant Improvements—Spec. 4215—Until July 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., improving power plant, here; $10 deposit required for plans and specifications.

D. C., Wash.—Portland Cement—Until July 17, by A. L. Flint, genl. purch. officer of Panama Canal, Wash., furnishing 10,000 bbl. Portland cement, on docks at Cristobal or Balboa, Canal Zone.

D. C., Wash.—Repairs to Mechanical Equipment—Until July 22, by Treas. Dept., repairing in Treasury Annex 1, Butler, Winder and Auditors buildings. J. A. Wetmore, acting superv. archt.

Va., Quantico—Storage Buildings—Spec. 4467—Until July 27 by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing at incinerator, here; $10 deposit required for plans and specifications. Noted June 30.

Mo., St. Louis—Hydraulic Dredge—Mississippi River Comn., International Life Bldg., receiving bids furnishing 12 in. hydraulic dredge for Mississippi River. About $112,000.

Tex., Galveston—Dredge Pumps—Until July 20, by U. S. Engineer, furnishing 2 dredge pumps; advertised in this issue.

Tex., Galveston—Submerged Riprap Spurs—Until July 25, by U. S. Engineer, constructing from North Jetty at Port Arkansas; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Buffalo — Hospital Alterations — Treas. Dept., Wash., D. C., received bids July 7 altering Marine Hospital 3 and fitting up a room for physiotheray treatment, etc., from Power Efficiency Corp., White Bldg., $2,800 (20 days); C. J. Gleason, 1526 Walton Way, Augusta, Ga., $4,200 (60 days); C. F. Mentzingers Sons, Brooklyn, $4,500 (120 days). Noted June 23.

★N. Y., New York—Dredging and Rock Removal—U. S. Engineer, Army Bldg., 39 Whitehall St., let contract for dredging and rock removal in East River, to Arundel Corp., 2 Pratt St., Baltimore, $1,062,892. Noted June 3.

N. Y., Stapleton — Officers Quarters — Treas. Dept., Wash., D. C., received bids constructing at Marine Hospital, here, from B. Diamond, 12 Bergen St., Brooklyn, $16,726; Hillard & Pearce, New York City, $17,379; M. D. Lundin, 240 East 119th St., New York City, $17,300. Noted March 3.

N. Y., Stapleton—Mechanical Equipment—Treas. Dept., Wash., D. C., received bids July 11, furnishing at Officers Quarters, here, from Heller Bros., 90 West St., New York, $3,980 (60 days); J. R. Proctor, New York City, $4,340 (100 days); E. J. McCabe, 574 2nd Ave., New York City, $4,900 (50 days). Noted June 23.

★W. Va., Wheeling—Structural Steel, etc.—U. S. Engineer, Post Office Bldg., let contract furnishing 200 ton steel for beartraps at Dam 13, Ohio River, to J. Eichleay Co., 20th and Wharton Sts., Pittsburgh, Pa. About $31,000. Noted June 16.

★N. C., Wilmington—Post Office—Treas. Dept., Wash., D. C., let contract remodeling postoffice, here, to J. Devault, Massillon Rd., Canton, O., $10,251 (60 days).

★S. C., Charleston—Repairs to Dredge—U. S. Engineer, Munitions Bldg., Wash., D. C., let contract repairing dredge "Barnard," here to Charleston Dry Dock & Machine Co., South 6th St., $22,599.

★S. C., Spartanburg—Mailing Vestibule, etc.—Treas. Dept., Wash., D. C., let contract constructing new mailing vestibule, extending driveway, etc., at postoffice, here, to J. Devault, Massillon Rd., Canton, O., $4,707 (90 days). Noted June 9.

Ky., Dawson Springs — Sub-Station — Treas. Dept., Wash., D. C., received bids July 11, constructing outdoor electric substation, at Pub. Health Hospital, here, from Strang Electric Co., 214 South 7th St., Phila., $7,120 (90 days); Hoosier Eng. Co. 208 Saks St., Indianapolis, Ind., $7,365 (36 days); McCarty Bros. & Ford, 75 West Mohawk St., Buffalo, N. Y., $7,950 (75 days). Noted June 30.

O., Cleveland—Steam Piping—Treas. Dept. Wash., D. C., received bids constructing new steam piping, at Marine Hospital, here, from W. B. Van Sickle, Marrillon Rd. $5,258 (50 days); C. J. Gleason, 1526 Walton Way, Augusta, Ga., $5,230. Becker & Seidel, 324 Prospect St., $8,500 (60 days).

★Mich., Flint—Vestibule—Treas. Dept. Wash., D. C., received bids July 6 constructing in postoffice, here, from G. A Burley Co., Flint, $11,668; D. Stewart & Co., Janesville, Wis., $13,039; G. E. Wright, 7201 Paxton Ave., Chicago, $13,600. Noted June 23.

★Mich., Grand Rapids—Mailing Vestibule—Treas. Dept., Wash., D. C., let contract constructing mailing vestibule in postoffice, here, to W. McDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $15,794 (90 days). Noted Jan. 20.

★Mich., Sault St. Marie—Dike—U. S. Engineer, Munitions Bldg., Wash., D. C., let contract constructing, here, to G. O. Comb, Sault St. Marie, $15,470.

★Kan., Ft. Leavenworth — Shop — U. S. Government let contract building 1 story, 250 x 1,000 ft. mechanical repair shop, brick, stone and rein.-con., here, to Murch Bros. & Co., Bway. Exch. Bldg., St. Louis, Mo. About $392,000. Noted June 30.

★Mo., Carrolton — Boiler — Treas. Dept., Wash., let contract installing new heating boiler, in postoffice, here, to Bradley Heating Co., 3830 Oliver St., St. Louis, $2,170 (60 days).

★Ark., Little Rock—Heating System—Treas. Dept., Wash., D. C., let contract installing low pressure steam heating system, in postoffice and court house, here, to W. Wilby, Selma, Ala., $10,963 (90 days).

★Wash., Puget Sound—Fire Alarm Addition—Spec. 4440—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing additions to fire alarm system, here, to Gamewell Fire Alarm Telegraph Co., 70 East 45th St., New York City, $9,687 (60 days). Noted June 23.

★Cal., San Diego—Steam Distributing System—Spec. 4442—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing, here, to W. C. Merritt Co., 727 7th St., $9,831 (90 days). Noted July 7.

Dams

PROPOSED WORK

Dam—Springville, N. Y.—Town voted $100,000 bonds to build dam for electric power supply.

Dam—Linn Creek, Mo.—See "Industrial Works."

Dams — Broken Bow, Okla. — Hugo Hydro-Electric Power Co., Hugo, plans to build 3 dams on unit plan, Mountain Fork Dam, (first to be constructed), 200 ft. high, estimated 125,000 hp.; Little River Dam, 200 ft. high, 75,000 hp.; Kiamichi River Dam, 100 ft. high, 50,000 hp., 10 mi. northeast of here. W. L. Larimore, secy. Engineer not selected.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Dam—St. Thomas, Ont.—City let contract building rein.-con. storage dam across Kettle Creek, to Webster Constr. Co., Bank of Toronto Bldg., London. About $115,000. Prices wanted on concrete and reinforcing materials. Noted June 23.

Miscellaneous

PROPOSED WORK

Pipe, Valves, etc.—Spingwells, Mich.—Town plans to lay 8,000 ft. Class B, 10 in., 4,000 ft. Class C, 8 in. and 20,000 ft. Class C, 6 in. c.i. pipe, seventeen 6 and 8 in.

Miscellaneous **(Continued)**

gate valves, three 12 x 10 and 10 x 6 reducers, twenty-five 10 x 6 in., 8 x 6 in. and 6 x 6 in. crosses, forty-eight 10 x 8, 10 x 6, 8 x 8, 8 x 6 and 6 x 6 in. T's. fifty-five 6, 8 and 10 in. plugs. Pipe will probably be purchased and work done by village under separate contract. B. P. Esper, village clk.

Elimination of Grade Crossings—Milwaukee, Wis.—Chicago, Milwaukee & St. Paul Ry., Ry. Exchange Bldg., Chicago, plans to depress tracks from Clarke St. south to point beyond 35th St. crossing, and elevate beyond Clarke St. About $2,000,000. Work will be done by day labor. C. F. Loweth, ch. engr.

Steam Engine and Rock Crusher—Neosha, Mo.—City plans to purchase steam engine and rock crusher for grading and surfacing 10 blocks of West Main St. About $10,000. C. E. Prettyman, mayor.

Grain Elevator—Miles City, Mont.—C. Hanson plans to build grain elevator, concrete. About $100,000. Architect not announced.

Subway—North Little Rock, (Little Rock P. O.), Ark.—City plans to build rein.-con. and steel subway under Missouri Pacific R.R. tracks starting at 8th and Main Sts. and extending north to 12th and Main Sts. About $300,000. J. G. Lawrence, City Hall, engr.

Bunkering Equipment—Montreal, Que.—Montreal Harbour Comn. soon receives bids furnishing bunkering equipment. About $50,000. J. Kennedy, 57 Commissioners St., engr.

BIDS DESIRED

Asphalt Road Oil, etc.—Brooklyn, N. Y—Until July 20, by E. Riegelmann, boro pres., Boro Hall, furnishing and delivering 100,000 gal. asphalt road oil, 129,300 ft. lumber, manhole heads and covers, etc.

Gasoline, etc.—New York, N. Y.—Until July 19, by H. H. Curran, pres. Manhattan Boro,, Municipal Bldg., furnishing and delivering 20,000 gal. gasoline and 10,000 bags Portland cement.

Paving Gravel—New York, N. Y.—Until July 20, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., Crotona Park, Tremont and 3rd Ave., furnishing and delivering 500 cu.yd. paving gravel, 1,500 cu.yd. fine sand, 5,000 bags Portland cement, 20,000 gal. bituminous road surfacing material (for hot use).

Substructure of Pier—Phila., Pa.—Until Aug. 1, by G. F. Sproule, dir. Dept. Wharves, Docks and Ferries, 550 Bourse Bldg., constructing substructure of Girard Pier, No. 3, North Delaware River; advertised in this issue.

Roof—Concord, N. C.—Bd. of Light and Water Comrs. in market to purchase roof to cover clear water reservoir, 72 ft. dia., also iron fence to enclose plants and grounds. L. A. Fisher, supt.

Electric and Power Wiring—Cleveland, O.—City received bids July 1, installing electric and power wiring for city hospital buildings (now under construction), from Progressive Electric & Eng. Co., West 14th St., $102,500; Parker Electric Co., 1837 Euclid Ave., $110,024; Dingle-Clark Co., Engineers Bldg., $111,200. Noted June 23.

Crane—Detroit, Mich.—Dept. Purchase & Supplies, Marquette Bldg., receiving bids furnishing one 6 ton electric traveling crane with 2 yd. clamshell bucket, for asphalt plant.

Lighting Conduits—Detroit, Mich.—Until July 25, by F. Mistersky, secy. Public Lighting Comn., Atwater St., furnishing labor and material for building lighting conduits for lighting system on various streets, including lamp post foundations lamp posts, manholes and handholes.

Breakwater — Milwaukee, Wis. — Until July 18, by Park Bd. constructing 260 ft. rubble mound breakwater from Russell Ave. to southern city limits, on Lake Shore Drive 3, involving 15,000 ton stone. Cost between $50,000 and $60,000. G. Staal, City Hall, engr.

★Swimming Pool — Des Moines, Ia. — Pearse, Robinson & Sprague, archts., 261 Arts Bldg., let contract to Stark & Knotts, 204 5th St. building 10 x 150 x 350 ft. rein.-con. swimming pool at Camp Douglas, near here, for State Military Comn., Capital, Des Moines. About $33,105. Noted July 7, under Camp Dodge.

Gravel Loading Machine—Valley City, N. D.—Barnes Co. let contract for gravel loading machine, to Russell Grader Mfg. Co., 2005 University Ave., S. E., Minneapolis. About $2,550.

Sluice Gates—Los Angeles, Cal.—Until July 18, by Bd. Supervs. Los Angeles Co. furnishing two steel sluice gates, 7 ft. diameter, 20 ton each, for Devils Gate Dam.

Timber Grillage, Training Pier, etc.—Poupore, Que. — Until July 26, by Dept. Pub. Wks., Ottawa, Ont., building timber grillage, concrete walls, and training pier, involving 400 cu.yd. fill, 600 cu.yd. concrete. About $30,000. E. Lafleur, Dept. Pub. Wks., Ottawa, engr.

Pipe, etc.—Dartmouth, N. S.—Until July 19, by H. E. R. Barnes, town engr., furnishing 1,400 ft. 12 in., 2,000 ft. 9 in., 1,000 ft. 6 in. and 2,000 ft. 4 in. vitr. clay sewer pipe, 24 six in. and 24 four in. elbows, 45 ton 6 in. bell and spigot c.i. water pipe, 5 c.i. water pipe T's, 5 c.i. water pipe crosses, 12 gate valves, etc.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Asphaltic Paving Cement—New York, N. Y.—H. H. Curran, pres. Manhattan Boro., Municipal Bldg., let contract furnishing 600 ton asphaltic paving cement, to Warner-Quinlan Co., 79 Wall St., $13,938. Noted July 7.

★Bulkhead Wall—New York, N. Y.—M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., let contract building bulkhead wall at and near foot of Battery Pl., Contr. 1719, to Lustig & Weil, 103 Park Ave., $81,650. Noted July 7.

Terminal Freight House—Rochester, N. Y.—C. L. Cadle, supt. Pub. Wks., Capitol, Albany, received bids July 1, building terminal freighthouse here, Contr. 230, from W. F. Martens, 53 Franklin St., $182,399; Lustig & Weil, 103 Park Ave., New York City, $193,890; McCann Bldg. Co., Sheridan Ave. and Dove St., Albany, $204,635. Noted June 9.

Shafts—Jersey City, N. J. — New York State Bridge & Tunnel Comn. and New Jersey Interstate Bridge & Tunnel Comn., Room 617, Hall of Records, New York City, received bids July 12, building 2 shafts for vehicular tunnel under Hudson River, here, from Holbrook-Cabot & Rollins, 52 Vanderbilt Ave., New York City, $380,000; Jocylen Constr. Co., Bayonne, $428,000; T. Crimmins Contg. Co., 126 East 59th St., New York City, $450,000. All bids rejected owing to controversy over hour of opening. New bids July 19. Noted June 23.

Marine Terminals—Wilmington, Del.—Bd. Harbor Comrs., 351 Municipal Bldg., received bids building unit No. 1 of marine terminals from Hughes-Foulkrod Co., Commonwealth Bldg., Phila., $1,311,000; Snare & Treist Co., 8 West 40th St., New York City, $1,327,600; J. R. Wiggins Co., Otis Bldg., Phila., $1,365,500. All bids and unit prices on this project may be obtained by writing Engineering News-Record.

★Stadium—Columbus, O.—Ohio State University let contract building steel and concrete, to E. H. Latham Co., 40 East Broad St., $1,391,180. Noted June 30.

★Portland Cement—St. Paul, Minn.—City let contract furnishing 1,600 bbl. Portland cement for filtration plant, to St. Paul Builders Material Co., 605 Ryan Annex, $2.43 per bbl. f.o.b. cars. Noted May 26.

★Reinforcing Steel—St. Paul, Minn.—City let contract furnishing 57 ton reinforcing steel for water dept., to Speers-Jevne Co., Builders Exch. Bldg., Minneapolis, $3,320 f.o.b. St. Paul. Noted June 23.

★Pipe—Santa Monica, Cal.—City let contract furnishing 35,000 ft. Class B, 4-12 in. water pipe, to Grinnell Co., 439 East 3rd St., Los Angeles, $65,666.

★Culverts — Ontario — Dept. Pub. Highways, Parliament Bldgs., Toronto, let contract building concrete culverts in York Twp., Contr. 429, involving 5,000 cu.yd. earth excav. and 1,200 cu.yd. rein.con., to Castillani Constr. Co., Excelsior Life Bldg., Toronto. About $40,000. Cement and steel bought by owners. Noted May 26.

Application received by the Federal Power Commission from May 14 up to and including June 18.

212. Hirst, Chicago of Mining Co., 316 First Ave S., Seattle, Wash. Preliminary permit for dam at outlet of small lake, pipe line 1,800 ft. to power house at head of Didrickson Bay, Chicago of Island, Alaska, for power for mining.

213. J. H. Cann, Box 281, Juneau, Alaska. License for diversion dam in Cann Creek at the middle power site, small pipe line, 1,000 ft. to 75 hp. air compressor, at head of Lisianski Inlet, Alaska, for power for mining.

214. Dixie Power Co., Title Guaranty Bldg., St. Louis, Mo. Preliminary permit for dam for power development in the North Fork-White River, near its junction with White River in Baxter County, Ark., for public utility.

215. California Oregon Power Co., San Francisco, Cal. Preliminary permit to construct one or two dams and power plants in Klamath River, affecting the river from Sect. 8, T. 41 S., R 6 E., W.M., to Sect. 31, T. 39 S., R. 7 E., in Klamath Co., Ore., for public utility.

216. Original Mining & Milling Co., Merced, Cal. Preliminary permit for small diversion dam in Merced River ½-mi. conduit to power house on same stream, Mariposa Co., Cal., for mining purposes.

217. E. Fletcher, 920 Eighth St., San Diego, Cal. Preliminary permit for diversion dam in Boulder Creek, San Diego Co., Cal., in Sect. 10, T. 14 S., R. 3 E., S.B.M. conduit 4½ mi. to power house on same stream, for public utility.

218. Saw Tooth Power Co., c/o F. B. Colton, Atty., 256 Bway., New York, Preliminary permit for a comprehensive development of power in Pass Creek and tributary streams, in Kongarok Precinct, Seward Peninsula, Alaska, for mining.

219. L. O. Griffith, Oroville, Cal. Preliminary permit for dam, conduit, and power house in Middle Fork of Feather River, Butte Co., Cal., for public utility.

220. Colowyo Gold Mining Co., Centennial Wyo. Preliminary permit for small diversion dam, pipe line, and power house in Middle Fork of Little Laramie River, 4 mi. from Centennial, Albany Co., Wyo., for mining purposes.

221. J. T. Clarke, Room 314, 503 Fifth Ave., New York City. License for dam, reservoir, and power house in Big Horn River, in Sect. 4, T. 5 N., R. 6 E., W.R.M., Fremont Co., Wyo. The dam is already constructed and this application is in direct conflict with that of the Wyoming Power Co., for public utility.

222. Lewis River Hydro Electric Power Co., 704½ Main St., Vancouver, Wash. Preliminary permit for a series of four power developments on Lewis River below mouth of Cedar Creek, above Cresap's Ferry, at Swift Creek, and above mouth of Muddy River, in Clarke, Skamania, and Cowlitz Cos., Wash., for public utility.

223. C. B. Hawley, 450 Munsey Bldg., Washington, D. C. Preliminary permit for diversion dam, conduit and power house on New River at Sandstone Falls in Raleigh and Summers Cos., West Va., for public utility.

224. Kootenai Power Constr. Co., 347 Madison Ave., New York City. Preliminary permit for dam and power house at Kootenai Falls, Lincoln Co., Mont. Small power installation at mouth of Yaak River, transmission lines to pulp mill at confluence of Yaak and Kootenai Rivers and a second mill near Kalispell, Flathead Co., Mont., for pulp and paper mills.

225. Dixie Power Co., Title Guaranty Bldg., St. Louis, Mo. Prelinary permit for high dam and power house in Buffalo River near its junction with Panther Creek in Marion Co., Ark. Probably a second dam and power house to be located at the head of the pool created by first dam, for public utility.

OFFICIAL PROPOSALS

Bids: July 16.

Steel and Concrete Bridge Work Rebuilding of Amoskeag Bridge

Manchester, N. H.

Sealed bids for the rebuilding of Amoskeag Bridge over the Merrimac River and the Boston and Maine Railroad, in the City of Manchester, N. H., including a complete new superstructure, additions and repairs to the existing substructure and certain approach work, will be received by the Surveyor of the Department of Highways of said City at his office in City Hall until 12 o'clock noon (Eastern Standard Time), on Saturday, July 16, 1921, at which time and place the bids will be publicly opened and read aloud.

The bridge, which will be approximately 750 feet in length, will consist of four spans of through steel trusses, three steel plate girder spans and one steel beam span. It will have one readway 20 feet wide in the clear between curbs and one 6-foot sidewalk, with concrete deck, bituminous macadam pavement in the roadway and granolithic sidewalk.

Each bid must be accompanied by a properly certified check for ten thousand (10,000) dollars. A bond in the sum of fifty thousand (50,000) dollars of an approved surety company will be required for the faithful performance of the contract.

A more complete description of the work to be done is given in Notice to Bidders, Forms of Bid, Contract, Bond, the Specifications and the Contract Drawings accompany the same.

Copies of the foregoing may be inspected at the office of the Commissioners, Department of Highways, at said Manchester, and may be obtained from the engineers, Fay, Spofford & Thorndike, 15 Beacon Street, Boston, Mass., on and after July 1, 1921, by payment of a twenty-five (25) dollar deposit.

Receipt of bids will be subject to the conditions stated in said Notice to Bidders.

The right is reserved to reject any or all bids.

DANIEL F. CRONIN,
Surveyor of the Departent of Highways.
JAMES A. WELLMAN,
JOSEPH QUIRIN,
L. J. FARRELL.
Commissioners, Department of Highways for the City of Manchester, N. H.

FAY, SPOFFORD & THORNDIKE,
Engineers, 15 Beacon Street,
June 30, 1921. Boston, Massachusetts.

Bids: July 30.

Construction Work

Central Islip, N. Y.

Sealed proposals for Construction Work—Open Air Pavilion for Patients, at the Central Islip State Hospital, Central Islip, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until three o'clock p.m. (daylight saving time), on Wednesday, July 20th, 1921, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent (5 per cent) of the amount of the proposal. The contractor to whom the award is made will be required to furnish surety company bond in the sum of fifty per cent (50 per cent) of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of Specification No. 3747. The right is reserved to reject any or all bids. Drawings, specifications and blank forms of proposal may be consulted at the Central Islip State Hospital, Central Islip, N. Y., at the New York Office of the Department of Architecture, Room 618 Hall of Records Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

E. S. ELWOOD,
Secretary, State Hospital Commission
Dated: June 22, 1921.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Tuesday morning (10 o'clock) can usually be published in the issue out the following Thursday. Special price for Official Proposals, 40 cents a line.

Bids: July 20.

Sewer Construction

DEPARTMENT OF STREETS AND PUBLIC DEVELOPMENTS

Reading, Pa.

Sealed proposals will be received at the office of the City Clerk, Reading, Pa., until 9:45 a.m. (daylight saving time), Wednesday, July 20, 1921, for the construction of a concrete storm sewer on North Second Street, from Elm Street to Greenwich Street.

Approximate Quantities.

1,665 lin.ft. 3 ft. 9 in. x 4 ft. 9 in. concrete storm sewer with vitrified brick flow line construction.
18.5 lin.ft. reinforced concrete junction chamber.
30.0 lin.ft. 24 in. circular concrete storm sewer.
20.0 vert. ft. concrete manhole.
5 plate "I" basins 6 ft. long with connections.

Plans and specifications may be obtained by prospective bidders by making a deposit of ten dollars ($10) with the City Engineer, City Hall, Reading, Pa., who will furnish any other information which may be desired. Deposits made for plans and specifications will be refunded upon return of same prior to July 16, 1921.

Proposals must be marked "Bid for Storm Sewer Contract No. 3" and addressed to the City Clerk, City Hall Reading, Pa.

Contractors will be required to comply with the Act of July 18, 1917, P.L. 1083, relative to Workmen's Compensation Insurance, and proof must be furnished the Department by the said Contractors that they have accepted the provisions of said Act, and have insured their liability thereunder, or secured exemption therefrom.

The right is reserved to reject any or all bids.

By order of
WILLIAM B. YEAGER,
Superintendent.
EDMUND B. ULRICH,

Bids: July 18.

Building, Plumbing and Heating

Portsmouth, Va.

Sealed bids will be received by the City of Portsmouth, Virginia, until noon July 18th, and then publicly opened, for the construction of building, cell work and plumbing and heating for new City jail. Certified check equal to 10% of bid required.

Plans and specifications will be furnished on receipt of application accompanied by check for $10.

J. P. JERVEY,
City Manager.

Bids: July 25.

State Bridge Construction

Wheeler, Texas.

Sealed proposals addressed to the County Judge of Wheeler County, Texas, and filed with the county clerk for the construction of a Highway Bridge will be received at the office of the county clerk at Wheeler, Wheeler County, Texas, until 10 o'clock a.m., July 25, 1921, and then publicly opened and read.

DESCRIPTION OF WORK TO BE DONE

The construction of 1,380 feet of concrete pile trestle for which there are alternate designs, one an all reinforced concrete structure and the other all reinforced concrete with the exception of the stringers which are structural steel beams encased in gunite. The construction of about 11,500 feet of sand clay surfacing on cut and fill approaches. The site is at the crossing of Highway No. 4 over North Fork of the Red River about 3¾ miles from the railway station at Shamrock, Texas.

APPROXIMATE QUANTITIES

For the All Reinforced Concrete Type. 9,600 cu.yd. borrow excavation; 2,000 cu.yd. earth roadway excavation; 1,000 ft. sand clay surfacing 20 ft. wide; 247,000 lb. plain reinforcing bars; 1,359 lin.ft. wooden guard fence; 540 sq.yd. rip-rap; 1,700 cu.yd. Class A concrete; 12,400 lin.ft. concrete piling; 2,761 lin.ft. handrailing; 3,066 sq.yd. bituminous paving.

For Steel Stringer Type. 9,000 cu.yd. borrow excavation; 2,000 cu.yd. earth roadway excavation; 1,000 ft. sand clay surfacing 20 ft. wide; 7,800 lb. wire cloth reinforcing; 135,000 lb. plain reinforcing bars; 1,359 ft. wooden guard fence; 480 sq.yd. rip-rap; 1,316 cu.yd. Class A concrete; 10,530 lin.ft. concrete piling; 3,066 sq.yd. bituminous paving; 2,761 lin.ft. hand railing; 475,000 lb. structural metal gunite protection of stringers.

Detailed plans and specification of the work may be seen for examination, and information may be obtained at the office of P. V. V. Pennybacker, County Engineer, Shamrock, Texas; The State Highway Department, State Office Building, Austin, Texas; Guy Lott, Division Engineer S. H. D., P. O. Box 89, Amarillo, Texas; J. A. McLellan, Division Engineer S. H. D., 502 Dallas County Bank Bldg., Dallas, Texas, and C. R. Haile, Division Engineer S. H. D., Chamber of Commerce, San Antonio, Texas.

A set of plans and specifications will be mailed upon application to the State Highway Department and payment of five dollars which will not be returned.

A certified or cashiers' check for two thousand five hundred dollars ($2,500), made payable without recourse to the order of L. D. Miller, County Judge of Wheeler County, must accompany each proposal, as a guarantee that the bidder if successful, will enter into contract and make bond in accordance with the requirements of the specifications.

The right is reserved to reject any and all proposals or to waive all technicalities.

Proposals shall be submitted in sealed envelopes and marked, "Bids for the construction of the Red River Bridge in Wheeler County."

All bids will be retained by the Department and will not be returned to the bidder.

Bids: July 18.

Construction of Pavement

New Florence, Pa.

The Council of the Borough of New Florence will receive sealed competitive bids on the contract work, relative to the construction of 2,910 lin.ft. of reinforced concrete pavement, on Ligonier Street, New Florence, Pa.

Plans, specifications and proposal forms may be procured from the Secretary of Council, by leaving a deposit of $10 for each set, which deposit will be returned only if each set of plans, etc., are returned in good condition.

All bids must be submitted in strict accordance with the specifications, and must be in the hands of the Secretary on or before 8 o'clock p.m., Monday, July 18, 1921.

By Order of Council, Borough of New Florence.

EVANS JONES, President.
JOSEPH WAGONNER, Secretary.
CARSTENSEN & McLAIN, Engineers,
Johnstown, Pa.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
July 23	Maple Heights (Bedford P. O.), O.	July 21
July 25	Marysville, Wash	June 23
July 25	Los Angeles, Cal.	July 14
July 25	Burlington, Col.	July 14
July 26	Bombay, India	Apr. 28
July 26	Flora, Ill.	July 21
July 26	Council Groves, Kan.	July 21
July 29	Harrodsburg, Ky.	July 21
Aug. 1	Willmar, Minn.	July 21
Aug. 1	Gloversville, N. Y.	July 21
Aug. 2	Mankato, Minn.	July 21
Aug. 4	Gloucester, N. J.	July 21
	Adv. July 14 and 21.	
Aug. 4	Pella, Ia.	July 21
Aug. 5	Montreal, Que.	July 21
Aug. 8	Hammond, Ind.	July 21
	Adv. July 21.	
Aug. 8	Westwego, La.	July 21
Aug. 12	Dallas, Tex.	July 21
	Adv. July 21.	
Sept. 1	Verona, Pa.	July 21

SEWERS

July 25	Niagara Falls, Ont.	July 14
July 25	West St. Paul (St. Paul P. O.), Minn.	July 21
July 26	Atchinson, Kan.	July 21
July 26	Dubuque, Ia.	July 21
July 27	Kilburn, Wis.	July 14
July 29	Detroit, Mich.	July 21
July 29	Akron, O.	July 21
July 29	Aldan, Pa.	July 21
	Adv. July 21.	
Aug. 1	Hughesville, Pa.	July 21
Aug. 1	Mamaroneck, N. Y.	July 21
	Adv. July 21.	
Aug. 1	Willmar, Minn.	July 21
Aug. 1	Montreal, Que.	July 21
Aug. 2	Paterson, N. J.	July 14
Aug. 2	Glenview, Ill.	July 21
Aug. 8	Lebanon, Pa.	July 21
	Adv. July 21.	
Aug. 9	New York, N. Y.	July 21
Aug. 10	Maplewood, Mo.	July 21
Aug. 11	Mt. Vernon, Ill.	July 21

BRIDGES

July 23	Attleboro, Mass.	July 21
	Adv. July 21.	
July 25	Wheeler, Tex.	July 14
July 25	El Monte, Cal.	July 14
July 25	Lewiston, Pa.	July 21
July 26	Chattahoochee, Fla.	July 14
July 26	Atlantic, Ia.	July 14
July 27	Shrewsbury, N. J.	July 14
	Adv. July 14 and 21.	
July 27	Greenfield, Ia.	July 14
July 27	Warwick, R. I.	July 21
	Adv. July 21.	
July 27	Decatur, Ill.	July 21
July 27	Fremont, O.	July 21
July 28	Newport, N. Y.	July 14
	Adv. July 14 and 21.	
July 28	Kentucky	July 21
July 29	East Peoria (Peoria P. O.), Ill.	July 21
July 29	Missouri	July 21
Aug. 3	Appleton, Wis.	July 21
Aug. 9	St. Louis, Mo.	July 21
Aug. 15	Columbus, O.	July 21
Aug. 15	Burlington, Wis.	July 21
Aug. 16	Faribault Minn.	July 21
Aug. 17	Rochester, N. Y.	July 21
	Adv. July 21.	
Sept. 7	Kingman, Kan.	June 30

STREETS AND ROADS

Bids Close		See Eng. News-Record
July 25	Salem, N. J.	July 7
	Adv. July 7 to 21.	
July 25	Marshalltown, Ia.	July 14
	Adv. July 14 and 21.	
July 25	Akron, O.	July 14
July 25	Litchfield, Minn.	July 21
July 25	Marshall, Minn.	July 21
July 25	Benton, Ill.	July 21
July 25	Detroit, Mich.	July 21
July 26	Alabama	June 23
July 26	Alabama	July 7
July 26	Massachusetts	July 14
July 26	St. Louis, Mo.	July 14
July 26	Atlantic, Ia.	July 14
July 26	Orangeburg, S. C.	July 14
July 26	Memphis, Tenn.	July 21
July 26	Marshall, Mo.	July 21
July 26	Marshalltown, Ia.	July 21
July 27	Fulton, N. Y.	July 14
	Adv. July 14 and 21.	
July 27	Greenfield, Ia.	July 14
July 27	Oswego, N. Y.	July 21
	Adv. July 21.	
July 27	Pittsburgh, Pa.	July 21
July 27	Kansas City, Kan.	July 21
July 27	New Jersey	July 21
	Adv. July 14 and 21.	
July 27	Saluda, S. C.	July 21
July 27	Virginia	July 21
July 27	Benton, Ill.	July 21
July 27	Greenfield, Ia.	July 21
July 27	Brooklyn, N. Y.	July 21
July 27	Montreal, Que.	July 21
July 28	Sewaren, N. J.	July 14
	Adv. July 14 and 21.	
July 28	New Brunswick, N. J.	July 14
	Adv. July 14 and 21.	
July 28	Camden, S. C.	July 14
July 28	New Haven, Conn.	July 21
July 28	Nanty Glo, Pa.	July 21
July 28	Kentucky	July 21
July 29	Waverly, Ia.	July 21
July 29	Beaver Dam, Wis.	July 14
July 29	Mt. Holly, N. J.	July 14
July 29	Modesto, Cal.	July 21
July 29	Missouri	July 21
July 30	Cleveland, O.	July 21
July 30	Hillsboro, Mo.	July 21
Aug. 1	Highland, Ill.	June 30
Aug. 1	Hastings, Minn.	July 14
Aug. 1	Red Bank, N. J.	July 21
	Adv. July 14 and 21.	
Aug. 1	Washington	July 21
Aug. 1	Watertown, S. D.	July 21
Aug. 1	Montreal, Que.	July 21
Aug. 1	Greenville, S. C.	July 21
Aug. 2	South Fork, Pa.	July 21
Aug. 2	Alabama	July 7
Aug. 2	Maryland	July 21
	Adv. July 21.	
Aug. 2	Long Branch, N. J.	July 21
	Adv. July 21.	
Aug. 2	Trenton, N. J.	July 21
	Adv. July 21.	
Aug. 2	Gretna, La.	July 21
Aug. 2	Dayton, O.	July 21
Aug. 3	Maniwaki, Que.	July 14
Aug. 3	Cleveland, O.	July 21
Aug. 4	Wichita, Kan.	July 7
Aug. 5	Tennessee	July 21
Aug. 5	Pennsylvania	July 21
	Adv. July 14 and 21.	
Aug. 9	Syracuse, Kan.	July 7
Aug. 9	Charleston, S. C.	July 21
	Adv. July 21.	
Aug. 9	Trenton, N. J.	July 21
	Adv. July 21.	
Aug. 9	Duluth, Minn.	July 21
Aug. 10	Council Grove, Kan.	July 21
Aug. 12	Iola, Kan.	July 21

RAILWAYS

July 30	Minnesota	July 14

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
July 25	Welland, Ont.	July 7
July 25	Phillips, Wis.	July 14
July 25	St. Peter, Minn.	July 21
July 26	Cleveland, Miss.	July 14
July 27	Wisconsin Rapids, Wis.	July 7
Aug. 10	Ottumwa, Ia.	July 7

INDUSTRIAL WORKS

July 25	Oshkosh, Wis.	July 21
July 25	Phila., Pa.	July 21
Aug. 14	Victoria, Australia	June 2

BUILDINGS

July 25	Shorewood (Milwaukee P. O.), Wis.	July 14
July 26	Winnipeg, Man.	July 7
July 26	Virginia, Minn.	July 14
July 26	Uniontown, Pa.	July 14
July 26	Murphysboro, Ill.	July 21
July 26	Norman, Okla.	July 21
July 26	Perrysburg, N. Y.	July 21
July 26	Belleville, N. J.	July 21
	Adv. July 21.	
July 27	New Philadelphia, O.	July 21
July 28	Fairview, O.	July 14
July 28	Omaha, Neb.	July 14
July 28	New Concord, O.	July 21
July 29	Alsuma, Okla.	July 21
Aug. 1	Superior, Wis.	June 30
Aug. 1	Walkerton, Ont.	July 14
Aug. 2	Harrisburg, Pa.	July 7
Aug. 2	Kirkwood, Mo.	July 21
Aug. 3	Middletown, N. Y.	July 14
	Adv. July 14 and 21.	
Aug. 4	Dayton, O.	July 21
Aug. 5	Mason, Mich.	July 21
Aug. 5	Greensboro, N. C.	July 21
Aug. 5	Kansas City, Mo.	July 21
Aug. 6	Lakewood (Cleveland P. O.), O.	July 21
Aug. 8	Magee, Miss.	July 14
Aug. 8	Alliance, O.	July 21
Aug. 9	Ironwood, Mich.	July 14
Aug. 10	Abilene, Kan.	July 21
Aug. 11	Asheville, O.	July 14
Aug. 27	Augusta, Kan.	July 21
Sept. 6	Lincoln, Neb.	July 21

FEDERAL GOVERNMENT WORK

July 22	Dredging — Providence, R. I.	July 7
	Adv. July 7 to 21.	
July 25	Submerged Riprap Spurs—Galveston, Tex.	July 14
July 25	Lock Valves — Pittsburgh, Pa.	July 7
	Adv. June 30 to July 21.	
July 27	Sprinkler System—San Diego, Cal.	July 7
July 27	Double Houses—Wheeling, W. Va.	July 7
	Adv. June 30 to July 21.	
July 27	Power Plant Impvts.—Iona Island, N. Y.	July 14
July 27	Storage Buildings—Quantico, Va.	July 14
July 27	Tanks and Towers—Yorktown, Va.	July 21
	Adv. July 14 and 21.	
July 27	Water and Sewer Systems—Yorktown, Va.	July 21
	Adv. July 14 and 21.	
July 27	Riprap—Buffalo, N. Y.	July 21
	Adv. July 14 and 21.	
July 28	Repairing Building—Cairo, Ill.	July 21
July 29	Bridge—Portland, Ore.	July 21
July 29	Dredging — New York, N. Y.	July 7
	Adv. July 7 to 21.	
July 30	Dredging — Wilmington, Del.	July 21
	Adv. July 21.	

Bids Close		See Eng. News-Record
Aug. 1	Removing Boulder—Providence. R. I. Adv. July 7 to 21.	July 7
Aug. 2	Mezzanine Floor — Atlanta, Ga.	July 21
Aug. 10	Mailing Vestibule—Mason City, Ia. Adv. July 21.	July 21
Aug. 10	Vestibule—Mason City, Ia.	July 21
Aug. 15	Post Office, etc. — Globe, Ariz.	July 21
Aug. 18	Dredging, etc. — Buffalo, N. Y. Adv. July 21.	July 21

MISCELLANEOUS

July 25	Lighting Conduits—Detroit, Mich.	July 14
July 25	Water Pipe and Gate Valves —Milwaukee, Wis.	July 21
July 25	Station Finish, etc.—New York, N. Y.	July 21
July 26	Timber Grillage, Training Pier. etc.—Poupore, Que.	July 14
July 26	Swimming Pool—St. Louis, Mo.	July 21
July 27	Water Pipe — Montreal, Que.	July 21
July 28	Water Pipe and Fittings—Manitowoc, Wis.	July 21
July 28	Water Pipe, etc.—Two Rivers, Wis.	July 21
July 30	Pumps—London, Ont.	June 23
Aug. 1	Pier—Phila., Pa. Adv. July 14 and 21.	July 14
Aug. 2	Paving Brick—South Fork, Pa.	July 21
Aug. 17	Jib Cranes — Brooklyn, N. Y. Adv. July 21.	July 21
Aug. 20	Piers and Abutments—Dayton, O.	July 21

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Ill., Jerseyville—City having plans prepared laying 6 and 8 in. water mains and constructing pumping station and reservoir. About $75,000. Fuller & Beard, Chemical Bldg., St. Louis, Mo., engrs.

Minn., Calumet—See "Sewers."

Minn., Park Rapids—City having plans prepared building pumping station and extending waterworks. About $30,000. Bradley Eng. Serv. Co., St. Cloud, engrs.

Minn., Richmond—See "Sewers."

Minn., South St. Paul—City rejected bids building distribution system. About $21,000. Noted April 28.

Kan., Derby—City having plans prepared for waterworks system, including reservoir, 6 and 8 in. mains and pumping station. About $25,000. W. B. Rollins, Ry. Exch. Bldg., Kansas City, Mo., engrs.

Kan., Manhattan—City having plans prepared for waterworks system and new watermains. About $40,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Okla., Duncan—City rejected bids opened June 29, building 2,000,000 gal. reservoir. Benham & Mullergren, Firestone Bldg. Kansas City, Mo., engrs. Noted June 23.

N. S., Sydney—City soon receives bids for waterworks pump. About $25 000.

BIDS DESIRED

N. Y., Gloversville—Until Aug. 1, by M. Vrooman, engr., 10 North Main St., furnishing and installing mechanical pressure filter and appurtenances.

N. J., Gloucester—Until Aug. 4, by City Council, improving water supply system. Remington & Vosbury, 601 Market St., Camden, engrs.; advertised in this issue.

Pa., Verona—Until Sept. 1, by Suburban Water Co., for 5,000,000 gal. high duty pumping engine, crank and fly wheel, and turbine driven centrifugal pumps will be considered. A. B. Garvin, supt.

La., Westwego—Until Aug. 8, by V. A. Pitre, mayor and Bd. Aldermen, building complete water system including oil engine, pumps, steel tower, tank, hydrants, valves, pipe, pumphouse, etc.

Ky., Harrodsburg—Until July 29, by city improving waterworks system. Pearse, Greely & Hansen, 39 West Adam St., Chicago, engrs.

O., Maple Heights (Bedford, P. O.)—Until July 23, by village, laying 32,000 ft. 4-10 in. c.i. water mains in various streets. About $50,000. C. W. Courtney, Leader-News Bldg., Cleveland, engr. Incorrectly noted in our issue of July 14.

Ind., Hammnod—Until Aug. 8, by Bd. Pub. Wks. building 16,000 ft. water main. J. Erickson, 30 North La Salle St., Chicago, consult. engr.; advertised in this issue.

Ill., Flora—Until July 26, by city, extending and improving waterworks, electric light and power plants and laying 4-8 in. water mains and adding 1 unit to power plant. About $40,000. Fuller & Beard, Chemical Bldg., St. Louis, Mo., engrs. Noted June 16.

Ill., Litchfield—City receiving bids improving waterworks and filtration system. About $200,000. P. B. Wilson, Marion, engr.

Ill., Washington—Until July 26, by city, increasing waterwork capacity from 200,000 gal. to 400,000 gal. per 24 hours. About $75,000. A. J. Keil, clk. Private plans. Noted July 7.

Ia., Pella—Until Aug. 4, by city, constructing 200,000-gal. steel or concrete tank on 110 ft. tower. A. C. Kuyper, clk. Noted April 23.

Minn., Mankato—Until Aug. 2, by city, furnishing 8 in. 2 stage horizontal split case centrifugal pump, 1,750,000 gal. daily capacity. F. W. Bates, clk.

Minn., Willmar—Until Aug. 1, by city, extending water works system, involving 8,260 ft. 4 in. Class B water pipe, 6 hydrants, 2,600 lb. special castings, etc. H. Gundenson, clk. About $15,000.

Kan., Council Groves—Until July 26, by city, improving waterworks system, including two 700 gal. per min. and two 400 gal. per min. centrifugal pumps. About $25,000. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs. Noted May 19.

Tex., Dallas—Until Aug. 12, by Mayor and City Comrs., building water purification plant at White Rock Reservoir, capacity 15,000,000 gal. daily. M. G. James, city secy.; advertised in this issue.

Que., Montreal—Until Aug. 5, by chairman administrative Comn., City Hall, furnishing and installing one 12,000,000 gal. pump for McTarvish St. pumping station. Water Bd. Comn., Notre Dame St. E., engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Del., Wilmington—New Castle Co. let contract paving 3 mi. road from here to Newport, to J. F. O'Neal, Mt. Cuba, $73,851.

N. J., Avon—City opened bids July 12, building (1) 800 ft. 8 in. wells under 400 ft. and 200 ft. 8 in. wells over 400 ft., in Sect. 1, (2) 100,000 gal. steel water tank, in Sect. 2, (3) deep well pumps and 1,400 ft. 10 in. c.i. pipe, in Sect. 3, from A. J. Connolly, 100 South 10th St., Newark, (1) $6,600; Ridpath & Potter, 22nd and Cambria St., Phila., (1) $7,700; Simpson, Brown & Co., 90 West St., New York City, (1) $7,700, (2) $8,890; Phillips & Worthington, 90 West St., New York City, (1) $8,300; Chicago Bridge & Iron Wks., 30 Church St., New York City, (2) $8,050; Pittsburgh Des Moines Steel Co., 50 Church St., New York City, (2) $8,490; J. R. Proctor, 120 Liberty St., New York City, (3) $17,900; W. G. Fritz Co., Inc., 256 Valley Rd., West Orange, (3) $26,831; Suburban Eng. Co., 15 West 38th St., New York City, (3) $29,837.

★Tenn., Nashville—City let contract building rein.-con. grit chamber, pump foundations and superstructure improvements to G. B. Howard, 150 4th St., $217,550; relining and water-proofing reservoir, to W. S. Rae, Oliver Bldg., Pittsburgh, Pa., $182,179. Incorrectly noted in our issue July 7.

Mich., Detroit—Water Bd. will lay 860 ft. 6 in. and 5,340 ft. 8 in. c.i. water mains in Kentucky, Prarie, Wykes, Van Buren and Chalmers Aves. About $30,000. T. A. Leisen, Water Works, engr.

★Ia., Mason City—City let contract building storage reservoir, enlarging pumping station and extending water mains, to J. A. McDonald Constr. Co., 752 Builders Exch., Minneapolis. About $300,000. Noted June 9.

★Ia., Mason City—City let contract lining reservoir with concrete, (4,160,000 gal. capacity), to J. A. McDonald Constr. Co., 752 Builders Exch. Bldg., Minneapolis, $51,920. Noted June 23.

★Kan., Ottawa—City let general contact improving waterworks system and filtration plant, to Chanute Constr. Co., Chanute, $140,315; filter equipment, to International Filter Co. 333 West 25th Pl., Chicago, Ill., $7,600; tank and tower, to Chicago Bridge & Iron Wks., 105th and Throop Aves. $3,780. Noted June 23.

★S. D., Kimball—City let contract extending waterworks system, involving 12,440 lin.ft. 4-in. c.i. pipe, 6,263 lb. special castings, etc., to W. D. Lovell, 1415 8th St., S. E., Minneapolis, Minn., $19,857. Noted June 23.

★Okla., Duncan—City let contract building 12 mi. 4-12 in. c.i. watermains, etc., to Merkle Mchy. Co., 1733 Walnut St., Kansas City, Mo. About $128,000. Noted June 23.

★Ont., Sturgeon Falls—Town let contract building waterworks pumphouse, sidewalks and sewers, 2 mi. sanitary to McNamara Bros. & Thornton, Saulte Ste. Marie. About $70,000.

Sewers

PROPOSED WORK

Mich., Detroit—City having plans prepared building following lateral sewers. 3318 in blocks bounded by Dequindre, Arlington, Cody and Davison Aves.; 3319 blocks bounded by Dequindre, Arlington, Halleck and Cody Aves.; 3320 in blocks bounded by Dequindre, Arlington, Carpenter and Halleck Aves.; 3420 in blocks bounded by alley west of Monica and Livernois Aves., north and south of Burlingame Ave.; 3493, in blocks bounded by St. Aubin, Fleming, Nevada Aves. and Six Mile Rd.; 2478 in blocks bounded by Conant, Justine, Carpenter and Charles Aves.; 3496 in blocks bounded by John R. St., 600 ft. east of John R. St. Hilldale and alley north of Robinwood Ave.; 3497 in blocks bounded by Wetherby, Walton, Warren and Sparta Ave.; 3498 in blocks bounded by Yacama, Oakland, Winchester Aves. and Eight Mile Rd. About $50,000. C. W. Hubbell, city engr.

Ill., Augusta—City having plans prepared for sewerage system and sewage disposal plant. About $60,000. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs.

Minn., Calumet—City having plans prepared building sewers and water mains, also paving and installing electric lights on various streets. About $98,000. F. W. Hill, clk., Bradley Eng. Serv. Co., St. Cloud, engrs.

Minn., Richmond—Village having plans prepared building sewerage and waterworks system. About $60,000. L. P. Hennes recdr. Bradley Eng. Serv. Co., St. Cloud, engrs.

Mo., Monett—City having plans prepared laying 6 and 8 in. sewer pipe and manholes in various streets. About $25,000. B. Robins, Monett, engr.

Mo., Springfield—City election Aug. 2, to vote on $300,000 bonds to build storm sewers in various streets. G. W. Culler, 998 North Jefferson St., engr.

N. S., Sydney—City soon receives bids building sewers. About $25,000.

BIDS DESIRED

N. Y., Mamaroneck—Until Aug. 1, by Bd. Sewer Comrs. Dist. 1, Weaver St. Schoolhouse, constructing Sects. 1 and 2 sewer system in Dist. 1. L. E. VanEtten, 12 Lawton St., New Rochelle, engr.; advertised in this issue.

N. Y., New York—Until Aug. 9, by H. H. Curran, pres. Manhattan Boro., Municipal Bldg., constructing sewer in 26th St. from mulkhead line of East River to Madison Ave. and reconstructing sewer in Madison Ave. from East 25th to East 31st Sts., etc.

Pa., Aldan—Until July 29, by boro., building 5 mi. sanitary sewerage system. E. P. Chance, chn.; advertised in this issue.

Pa., Hughesville—Until Aug. 1, by R. H. Corson, secy. Boro. Council, building sewerage system and disposal plant.

Pa., Lebanon—Until Aug. 8, by D. M. Sharp, city clk., building 3rd unit of sanitary sewage disposal plant, and reconstructing parts of existing units; advertised in this issue.

O., Akron—Until July 29, by Director Pub. Serv., building 820 ft. 72 in. and segmental block and 2,110 ft. 90 in. concrete sewers with manholes, etc., in 3,000 ft. George Blvd. Trunk Sewer, Contr. 1. About $168,000. J. E. Root, Delaware Bldg., engr.

Mich., Detroit—Until July 29, by Dept. Pub. Wks., building 5,487 ft. Sect. 4 Bates St. Sewer in Brush St. from Canfield to Piquette Aves., 11 ft. 6 in. to 12 ft. cylinder; 5,421 ft. Jos. Campau Ave. Sewer from Canfield Ave. to point 330 ft. north of Harper Ave., 10 ft. 3 in. to 11 ft. circular section; 1,430 ft. Bates St. Sewer, Alfred St. Arm in Alfred St. from Brush St. to Woodward Ave. 9 ft. 6 in. cylinder; 2,657 ft. 3rd Ave. Sewer, Stanley Ave. Arm in Stanley and Colburn Aves., from Commonwealth to 3rd Aves., 4 ft. 6 in. to 5 ft. 9 in. and 3 ft. 3 in. x 4 ft. 4 in. cylinder. all

Sewers (Continued)

foregoing tunnel construction, brick or monolithic concrete; 3,705 ft. Six Mile Rd. Sewer, Mt. Elliot Arm, in Mt. Elliot Ave. from Six Mile Rd. to Nevada Ave., in Nevada Ave. from Mt. Elliot to Dwyer Aves., Davison Ave. from Mt. Elliot to Paulus Aves., 3 ft. to 5 ft. 6 in. cylinder, 7,236 ft. Highland Park Arm, Sect. 1, in alley north of 14th St. and Edison Ave., from Linwood to 3rd Aves., Edison Ave. from Linwood to LaSalle Aves., 4 ft. to 11 ft. 6 in. cylinder, brick or monolithic concrete. C. W. Hubbell, city engr.

Ill., Glenview—Until Aug. 2, by city, laying 8-40 in. tile sewer pipe in various streets. About $54,969. A. R. Wolfe, 29 South La Salle St., Chicago, engr.

Ill., Mt. Vernon—Until Aug. 10, by city, constructing 12 in. vitr. pipe sewers, brick manholes, etc. About $75,000. A. C. Stansfield, Pana, engr. Noted June 23.

Ia., Dubuque—Until July 26, by J. Stuber, city clk., laying 12-54 in. vitr. tile sewers in Lincoln and Ann Aves. About $60,000. W. Cullen, city engr.

Minn., West St. Paul (St. Paul P. O.)—Until July 25, by City Council, building sanitary sewerage system, involving 26,900 lin.ft. 8-30 in. pipe. Claussen & Carroll, 1628 Lincoln Ave., St. Paul, consult. engrs. Noted Dec. 2.

Minn., Willmar—Until Aug. 1, by city, building sewerage system, involving 5,125 lin.ft. 8 in. and 5,110 lin.ft. 15-24 in. sewer pipe, 24 manholes, sewer connections, etc. About $27,000. H. Gunderson, clk.

Kan., Atchinson—Until July 26, by city, laying 8-12 in. sewer pipe, 18 manholes and 5 lampholes. About $25,000. V. L. King, clk. Private plans.

Mo., Maplewood—Until Aug. 10, by city, c/o G. Komar, clk., laying intercepting sewer and water mains, in various streets. About $40,000. A. H. Beard, Chemical Bldg., St. Louis, engr. Noted June 16.

Que., Montreal—Until Aug. 1, by chairman Administrative Comn., City Hall, building brick sewers in Walkeley Ave. and Gouin Blvd. About $59,745. A. E. Doucet, dir. pub. wks.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. J., Paterson—Passaic Valley Sewerage Comrs., 128 Market St., Newark, received bids July 12, building northerly portion of Sect. 23 of Warren St. Branch Intercepting Sewer, here, involving (a) 1,350 lin.ft. earth excav. and refilling in trench for 24 in. concrete sewer, (b) 700 cu.yd. concrete masonry, in trench, Portland cement mortar, (c) 200 cu.yd. earth filling for grading, etc., from Arnolt-More, Inc., 45 Clinton St., Newark, (a) $7 per lin.ft., (b) $15, (c) $1, total cost $30,770; Harrison & Craig Co., 31 Clinton St., Newark, (a) $8, (b) $19, (c) $1.50, $32,285; L. B. Harrison & Co., Paterson, (a) $7.27, (b) $21.83, (c) $1.50, $33,783. Noted June 30.

★Fla., Monticello—City let contract building sanitary sewerage system, to Sullivan, Long & Hagerty, Bessemer, Ala., $36,927. Noted May 26.

★Mich., Detroit—Dept. Pub. Wks. let contracts building Sects. 1 and 2, Seven Mile Rd. Sewer, to Nash Bros., Lonyo Rd. and Kirkwood Ave., $659,684: Sect. 8, Seven Mile Rd. Sewer, to W. Blanck & Co., 827 Ford Bldg., $96,019; Mack Ave. Sewer and Kirby Ave. Arm Sewer, to J. A. Mercier, 216 Hammond Bldg., $45,597 and $60,639 respectively. Noted June 16.

★Wis., Cumberland — City let contract building sanitary sewerage system and sewage treatment plant, to Hedberg-Boise Co., 2208½ West 2nd St., Duluth, Minn. About $70,000. Noted June 16.

★Ia., Creston—City let contract building storm and sanitary sewers in various streets, to H. Rees & Son, Quincy, Ill., $28,726. Noted June 16.

★Mo., Clayton—City let contract building concrete tank and 6-8 in. sewers in various streets, to F. A. Grant, University City. About $25,000. Noted July 7.

★Okla., Duncan—City let contract building 11 mi. sanitary sewers, 2 disposal plants, etc., to Grimes & James, Miami. About $177,222. Noted June 23.

★Utah, Ogden—City let contract furnishing labor and material for main outfall sewer, involving 29,330 ft. 42-60 in. precast rein.-con. pipe and 122,389 cuyd. excav., to Security Bridge Co., 502 North 32nd St., Billings, Mont., $375,614. Noted June 23.

★Que., Montreal—City let contract building sewer in Mozart St. from Drolet to Belanger Sts., to I. P. Heffernan, 573 Rockland St., $25,300. Noted June 23.

★Ont., Sturgeon Falls—See "Waterworks"

Bridges

PROPOSED WORK

N. J., Trenton—Bd. Freeholders Mercer Co. had plans prepared for 250 ft. steel and concrete drawbridge, 32 ft. wide, with 60 ft. towers, on Southard St. over Pennsylvania R.R. tracks, involving 1,600 cu.yd. concrete, 1,000,000 lb. steel, and 2,000 tons stone, 10,000 bags cement, etc. About $200,000. J. A. L. Waddell, 35 Nassau St., New York City, consult. engr.

Md., Baltimore—See "Buildings."

North Carolina—State Highway Comn., at div. office, Kinston, soon receives bids building bridges and culverts on State Project 640, Wayne Co., involving 639 cu.yd. Class "A" concrete, 64,170 lb. reinforcing steel, 2,160 ft. untreated timber, and 750 ft. treated timber piles, etc. About $30,000. C. Upham, Raleigh, state highway engr.

Michigan—State Highway Dept., Lansing, plans to build Bridges 660401 and 660402, both 35 ft., rein.-con. arches, in Ontonagon Co. About $25,000.

Wis., Appleton—City plans to build 1,200-1,500 ft. bridge on Cherry St., probably rein.-con. E. L. Williams, clk. Engineer not selected.

Mo., St. Joseph — Buchanan Co. having plans prepared for steel truss span, concrete abutments over Platte River D. D. About $90,000. W. B. Hazen, Commercial Bldg., engr.

Okla., Muskogee—State Highway Dept., Oklahoma City, soon receives bids building following bridges for Muskogee Co.: Frisco Bridge, to have six 210 ft. pin or riveted spans, about $245,000; Whitefield Ferry Bridge, four 210 ft. pin or riveted spans, $200,000; Webber Falls Bridge, eleven 160 ft. pin or riveted spans, $400,000; all above to have concrete floors, asphalt or block surface. Burnham & Clont, Muskogee, engrs.

Tex., San Antonio—City opens bids about Aug. 15, building three 100 ft. rein.-con. bridges over San Antonio River, 30 ft. wide. About $94,000. H. Helland, city engr.

Utah, Riverdale — Weber Co., Ogden, plans to build combination bridge and viaduct over Weber River and tracks of Union Pacific R.R., here, to have 4 ft. sidewalk, 20 ft. clear roadway, 130 ft. steel truss over river, 130 ft. steel truss over tracks, 600 ft. rein.-con. viaduct and 1,540 ft. approaches. About $173,000. F. J. Fisher, Capitol, Salt Lake City, engr.

BIDS DESIRED

Mass., Attleboro—Until July 23, by P. E. Brady, mayor, constructing 2 bridges on Mechanic St.; advertised in this issue.

R. I., Warwick—Until July 27, by State Bd. Pub. Rds., Room 21, State House, Providence, constructing 3 spans rein.-con. arch bridge between here and Cranston; advertised in this issue.

N. Y., Rochester—Until Aug. 17, by C. L. Cadle, supt. Pub. Wks., Capitol, Albany, constructing approach from Clarissa St. to Barge Canal Terminal, here, Contr. 84; advertised in this issue.

Pa., Lewistown—Until July 25, by J. H. Saxton, boro clk., building 84 ft. single span arch bridge over Keshacoquillas Creek on South Main St., alternate bids for reconstructing existing 2 span arch. J. B. Long, Boyer Arcade, Norristown, and F. H. Shaw, Breneman Bldg., Lancaster, engrs. Noted June 30.

Kentucky—Until July 28, by State Highway Dept., Frankfort, building three 50-100 ft. steel span bridges on Edmonton-Glasgow Rd., Metcalfe Co., involving 600 cu.yd. concrete, 188,000 lb. steel, 20,000 ft. lumber; two 40-75 ft. steel span bridges on Burkesville-Edmonton Rd., Cumberland Co., 64,600 lb. steel, 10,300 ft. lumber; eleven 6-30 ft. span bridges on Winchester-Boonesboro Rd., Clark Co., 783 cu.yd. rein.-con., 65,100 lb. reinforcing steel, 209 cu.yd. stone; two 50 ft. steel spans on Glasgow-Edmonton Rd., Barren Co., 29 cu.yd. concrete, 6,270 lb. reinforcing steel, 57,600 lb. structural steel; 14 rein.-con. box culverts, 2 plain concrete abutments, 1 plain concrete pier on Glasgow-Edmonton Rd., Barren Co., 722 cu.yd. concrete, 18,400 lb. reinforcing steel; 21 rein.-con. box culverts and 4 cement rubble masonry abutments on Burkesville-Edmonton Rd., Cumberland Co., 358 cu.yd. concrete, 24,600 lb. reinforcing steel, 658 cu.yd. stone.

Kentucky—Until July 28, by State Highway Comn., Old Capitol Bldg., Frankfort, building five 30 ft., two 20 ft. and three 12 ft. span bridges and one 6 ft. span slab on present abutments on Winchester-Boonesboro Rd., State Project 50, Clark Co., involving 322 cu.yd. Class "A," 449 cu. yd. Class "B" and 12 cu.yd. Class "D" concrete, 65,100 lb. reinforcing steel, 222 sq.yd. asphalt surfacing, etc.; 14 rein.-con. box culverts, 2 concrete abutments and 1 concrete pier, on Glasgow-Edmonton Rd., State Project 1, Barren Co., involving 295 cu.yd. Class "A" and 427 cu.yd. Class "B" concrete, 18,400 lb. reinforcing steel, two 50 ft. steel spans, involving 28 cu.yd. Class "A" concrete and 6,270 lb. reinforcing steel in floor, and 57,600 lb. structural steel; 21 rein.-con. box culverts and 4 cement rubble masonry abutments on Burkesville-Edmonton Rd., Cumberland Co., involving 333 cu.yd. Class "A" and 25 cu.yd. Class "B" concrete, 658 cu.yd. cement rubble masonry and 24,600 lb. reinforcing steel, one 40 ft. and one 75 ft. spans involving 64,600 lb. structural steel and 10,300 ft. lumber in floors; one 100 ft., one 75 ft. and one 50 ft. steel spans on Edmonton-Glasgow Rd., State Project 1, Metcalfe Co., substructure involves 600 cu.yd. Class "B" concrete, superstructure 138,000 lb. structural steel and 20,000 ft. lumber in floors. J. S. Boogs, state highway engr.

O., Columbus — Until Aug. 15, by Bd. Trustees Ohio State University building 340 ft. concrete bridge over Olentangy River, on University grounds. About $124,000. Former bids rejected. C. T. Morris, Ohio State University Campus, engr. Noted April 28.

O., Fremont—Until July 27, by Comrs. Sandusky Co. building 350 ft. concrete bridge, 42 ft. wide, over Sandusky River. About $225,000. Braun, Fleming, Knollman & Prior, 233 South High St., Columbus, engrs. Noted July 7.

Ill., Decatur—Until July 27, by city, constructing Comford Bridge, 2 abutments and 2 piers. Three types to be submitted, cantilever, girder and second girder. About $260,000. P. T. Hicks, Decatur, engr.

Ill., East Peoria (Peoria P. O.)—Until July 29, by city, constructing 1 span rein.-con. bridge, brick approach, over Kickapoo Creek. About $30,000. Private plans.

Wis., Appleton—Until Aug. 3, by E. L. Williams, city clk., building 385 ft. rein.-con. bridge on Lowe St., to have 12 spans. About $150,000. Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, Mo., engrs.

Wis., Burlington—Until Aug. 15, by city, building 100 ft. rein.-con. bridge, 36 ft. wide. Wisconsin Highway Comn., Madison, engrs.

Missouri—Until July 29, by State Highway Dept., Bethany, building 120 ft. steel truss, 60 ft. pony truss and 35 ft. I-beam span bridges, etc., over Big Creek, at Sta. 1251 plus 55, on state road from Eagleville to Bethany. Federal Aid Project 130, Harrison Co. About $38,816. A. Graham, Jefferson City, state highway engr. Noted June 16.

Mo., St. Louis—Until Aug. 9, by Bd. Pub. Serv. building 74 ft. steel truss span bridge, 40 ft. wide, on Natural Bridge Ave. About $35,000. E. R. Kinsey, pres. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Athol—Bd. Selectmen let contract building steel frame bridge, on Chestnut Hill Ave., to Boston Bridge Wks., 47 Winter St., Boston. About $25,000. Noted June 9.

★Conn., Groton—State Highway Dept., 240 Farmington Ave., Hartford, let contract constructing rein.-con. sub-structure and approaches for Mystic River Bridge, between here and Stonington, to J. E. Fitzgerald Co., State and Maine Sts., New London, $73,063. Noted July 7.

Pa., Phila.—City received bids removing old bridge over Schuylkill River on South St. building new piers, dredging, etc., from Snare & Triest Co., Pennsylvania Bldg., $516,000; Keystone State Constr. Co., Franklin Bank Bldg., $558,000. Noted June 30.

South Dakota — State Highway Dept., Pierre, and city of Belle Fourche, opened bids July 6, building bridge on Oak St., over Belle Fourche River, from Allied Contractors, Inc., 4616 Harney St., Omaha, Neb., $29,432; Schreiber Constr. & Eng. Co., Watertown, S. D., $31,147; Pioneer Constr. Co., 515 New York Life Bldg., Kansas City, Mo., $31,578. Noted June 16.

Streets and Roads

PROPOSED WORK

North Carolina — State Highway Dept., Raleigh, plans to clear, grub, grade, drain, bridge and topsoil 15 mi. road from Bat Cave to Hendersonville, State Project 584, Henderson Co., about $100,000; 6 mi. road from Columbus to Tryon, State Project 585, Polk Co., $40,000. C. M. Upham, state highway engr.

Streets and Roads (Continued)

North Carolina — State Highway Comn., Raleigh plans to clear, grub, grade, drain, bridge and topsoil 10 mi. road from Brevard to Roseman, State Project 581 Transylvania Co., about $70,000, 14 mi. road from Franklin to Georgia State line, State Project 579, Macon Co., $98,000, 13 mi. road from Sylva to Transylvania Co. line, State Project 580, Jackson Co., $90,000; clear, grub., grade, drain, bridge and surface with sand clay or topsoil, 10 mi. road from Forks of Ruckaseigee River to Transylvania Co. line, State Project 582, Jackson Co., $70,000; grade, drain, bridge and pave with some asphaltic material or concrete, 6 mi. road from Morganton to Glen Alpine, State Project 586, Burke Co., $185,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., at div. office, Kinston, soon receives bids clearing, grubbing, grading, draining and paving 2.65 mi. State Project 516, Craven Co., involving 15 acres clearing and grubbing, 22,400 cu.yd. borrow, 15,700 cu.yd. excav., 14,850 sq.yd. concrete, topeka or asphalt, 68 cu.yd Class "A" concrete, 4,600 lb. reinforcing steel, etc. About $112,000. C. M. Upham, Raleigh, state highway engr.

Fla., Bradentown — Manatee Co. plans election to vote on $360,000 bonds to build 51 mi. roads, vitr. brick or asphalt.

Alabama — State Highway Dept., Montgomery, having surveys made grading, draining and surfacing 12 mi. road from Tuscumbia to Lawrence Co. line, Colbert Co. W. S. Keller, state highway engr.

O., Cleveland—M. Lees, 2099 Lamberton Rd. plans to lay 30,000 sq.ft. stone sidewalks and 1,800 ft. 12-24 in. vitr. sewer in Taylor Hurst Allotment. Wight-O'Rourke Co., Rose Bldg., engrs.

O., East Liverpool—City plans to pave California Rd., brick. About $42,000. J. George, city engr.

Michigan—State Highway Dept., Lansing, plans to grade, drain and surface 5 mi. State Trunk Line Rd. 26-6, Ontonagon Co., stamp sand 2½ mi. State Trunk Line Rd. 84-1, Machinac Co., macadam; 5 mi. State Trunk Line Rd. 48-5, Sect. B, Chippewa Co., macadam, 7 mi. State Trunk Line Rd. 21-13 Sects. B. E and F, St. Clair Co., 1 mi. State Trunk Line Rd. 31-8, Tuscola Co. F. F. Rodgers, state highway comr.

Michigan—State Highway Dept., Lansing, soon receives bids grading, draining and surfacing 6 mi. State Trunk Line Rd. 25-2, Sect. A, Luce Co., macadam 5 mi. State Trunk Line Rd. in Keweenaw Co., macadam 2 mi. State Trunk Line Rd. 38-4, Lapeer Co., gravel 4 mi. State Trunk Line Rd. 90-1, Sect. A, Dickinson Co., stone-gravel; 1¼ mi. State Trunk Line Rd. 13-10, St. Joseph Co., concrete or bituminous concrete. F. F. Rodgers, state highway comr.

Mich., Detroit—City plans to pave Centerline Ave. from north line of Erbie Ave. to lots 79 and 273 between Roland and Markel Aves., cost $33,600; Devereaux Ave. from Gilbert Ave. to alley east of Daniels St., $15,800; Marcus Ave. from Centerline Ave. to point 10 ft. east of VanDyke Ave., $19,700, all sheet asphalt on 8 in. concrete base; alley between Northfield, Ironwood, Ivanhoe and Spokane Aves., $5,280; alley between Beaubien, Oakland, Alger and King Aves., $5,290; alley between Iroquois, Burns, Goethe and Mack Aves., $4,410; alley between Seneca, Burns, Moffat and Chapin Aves., $5,380; east and west alley between Scotten, Hubbard, Spring and Lafayette Aves., $2,040; north and south alley between Goodwin, Cameron, Holbrook and Owen Aves., $2,070; north and south alley between Brush, Beaubien, Smith & Chandler Aves., $1,810, all alleys to be paved with one course rein.-con. C. W. Hubbell, city engr.

Mich., Muskegon—Muskegon Co. having plans prepared shaping road bed. trenching, forming shoulders and paving 2 mi. Assessment Dist. Rd. 9, involving 21,332 sq.yd. concrete or bituminous concrete. About $75,000. Muskegon Co. Rd. Comn., Court House, engrs.

Ill., Lincoln—City plans to pave 5th St., brick on concrete base. About $25,000. W. E. Bates, Lincoln, engr

Ill., Oak Park—City having plans prepared paving Chicago Ave., brick or asphalt on concrete base. About $193,561. G. H. Graves, Municipal Bldg., engr.

Ill., West Frankfort—City plans to pave Horn, Gardner and Lindell Sts., Paving Dist. 11, involving 6,205 sq.yd. vertical fibre on concrete base, 7,314 lin.ft. curbing and guttering, 2,640 cu.yd. earth excav., etc., cost $36 570; Elma, Emma, Jackson, Jefferson and Clark Sts., Paving Dist. 12, 6,600 sq.yd. vertical fibre, 8,076 lin.ft. curbing and guttering, 3,460 cu.yd. excav., etc., $37,099; various alleys in Paving Dist. "A" 7,935 sq.yd. concrete, 3,210 cu.yd earth excav., $34,790; Lindell, Fourth, Emma and Jefferson Sts., Paving Dist. 8, 10,850 lin.ft. curbing and guttering 3,700 cu.yd. earth excav., 8,671 sq.yd. navaculite pavement, etc., $31,-223. E. A. Cox, West Frankfort, engr.

Ia., Des Moines—City soon receives bids paving West 16th St., brick on concrete base. About $25,000. K. C. Kastberg, city engr.

Kan., Augusta—City having plans prepared for 10,000 sq.yd. brick pavement, 6,000 ft. curbing and 400 ft. 30 in. sewer pipe. About $60,000. Ruckel Eng. Co., Hutchinson, engrs.

Missouri—State Highway Dept., Jefferson City, plans to build 3.76 mi. state road from Troy eastward and westward, State Aid Project 20.69, Lincoln Co., involving 20,097 cu.yd. earth and 854 cu.yd. rock excav., 4,080 cu.yd. borrow 244.5 cu.yd. Class B and 44.1 cu.yd. Class C concrete masonry, etc. About $25,344. A. Graham, state highway engr.

Tex., Nacogdoches—Nacogdoches Co. had plans prepared graveling 19.6 mi. road on Highway 35, 15 ft. wide. Cost $204,317. L. Acker, co. engr.

Col., Durango — City plans to pave 7 blocks Main St., 1:2:3 concrete, 6 in. thick. About $68,000. W. H. Wigglesworth, Durango, engr.

Utah—State Highway Comn., Salt Lake City, plans to grade and pave with concrete 1.83 mi. state road from Provo to Pleasant Grove, 18 ft. wide, 6-8 in. thick. About $57,100. H. C. Means, state road engr.

Utah, Ogden — City plans to grade and lay 132,549 sq.yd. concrete sidewalk, 4 in. thick, in Sidewalk Dist. 151. About $32,-832. J. M. Tracy, city engr.

Que., Montreal East—Municipality soon receives bids building roads. About $100,-000. J. A. Hurtebois, Montreal East, engr.

Ontario — Provincial Highways, Parliament Bldgs., Toronto, plans to improve Ottawa-Pembroke Rd. in Renefrew Co. About $150,000. G. Hogarth, Parliament Bldgs., Totonro, ch. engr.

Ont., Galt—City having plans prepared building asphaltic concrete pavement with concrete curbs and gutters on Beverley St. from Wellington St. to city limits, cost $50,890, also 20,000 lin.ft. concrete curbs and gutters on various other streets, $23,-505. D. T. Black, city engr.

Ont., Hamilton—City having plans prepared paving 20,000 sq.yd. Aberdeen Ave. from Dundum St. to Westinghouse factory, asphalt on concrete base. About $100,000. E. R. Gray, city engr.

BIDS DESIRED

Conn., New Haven—Until July 28, by Bureau of Eng. paving several streets, asphalt, bituminous concrete or national permanent pavement. Cost between $40,-000 and $50,000. E. S. Nettleton, city engr.

N. Y., Brooklyn—Until July 27, by E. Riegelmann, boro pres., Boro Hall, regulating and grading Delamere Pl. (East 23rd St.) from Ave. N to Kings Highway, 89th St from Colonial Rd. to Narrows Ave.; regulating, curbing and laying sidewalks on Delamere Pl. (East 23rd St.) from Ave. N to Kings Highway; regulating, grading, curbing, laying sidewalks and paving Ave. L. from Ocean Ave. to East 21st St. (Kenmore Pl.), Sheepshead Bay Rd. from Neptune Ave. to West 8th St., preliminary bituminous macadam; regulating and paving Lincoln Rd. and East New York Ave. from Nostrand to New York Aves., 17th Ave. from 49th to 42nd Sts., 18th Ave. from Ocean Parkway to Coney Island Ave., 79th St. from 18th to 19th Aves., permanent asphalt on 6 in. concrete foundation; regulating, grading, curbing and laying sidewalks, on Ave. S from East 13th to East 14th Sts., 18th Ave. from Ocean Parkway to Coney Island Ave.; regulating and laying sidewalks where necessary on both sides of 4th Ave. from 65th St. to Bay Ridge Ave.; regulating, resetting curb and paving 77th St. from 13th to 14th Aves., permanent asphalt on concrete foundation; regulating and curbing 89th St. from Colonial Rd. to Narrows Ave.; regulating and repaving Gold St. from Tillary to Johnson Sts. and Johnston St. from Gold St. to Flatbush Ave. Extension, asphalt on concrete foundation, Carroll St. from Gowanus Canal to 3rd Ave., Clinton St. from Warren to Baltic Sts., Warehouse Ave. from Neptune to Mermaid Aves., asphalt on present concrete foundation.

N. Y., Oswego—Until July 27, by Dept. Wks., City Hall, for 5,420 cu.yd. rein.-con. pavement including integral curb, etc. J. T. Collins, comr.; advertised in this issue.

New Jersey—Until July 27, by State Highway Dept., Broad St. Bank Bldg., Trenton, building Route 12, Sect. 1, beginning at Pine Brook and ending at Parsippany, Morris Co. in municipalities of Montville and Hanover, also building Bridges 84, 86, 88, and N and culverts M.P. 5.3-E and M.P. 4.7-E. C. A. Mead, 790 Broad St., Newark, bridge engr.; advertised in this issue.

N. J., Long Branch—Until Aug. 2, by Bd. Comrs. paving Ocean Ave. southwardly from Brighton Ave. to northern boundary line of Boro of Deal, Warrenite bitulithic on concrete foundation. J. W. Seaman, 192 Bway., city engr.; advertised in this issue.

N. J., Red Bank—Until Aug. 1, by Mayor and Boro Council, improving Broad St. (Sect. 2), sheet asphalt on concrete foundation; paving Shrewsbury Ave. (Sect. 2), rein.-con. G. K. Allen, 60 Broad St., boro engr.; advertised in this issue.

N. J., Trenton—Until Aug. 2, by Bd. Freeholders Mercer Co., paving 3 570 ft. Princeton Ave. from Spruce St. to Harneys Corner, rein.-con. H. F. Harris, co. engr.; advertised in this issue.

N. J., Trenton—Until Aug. 9, by Bd. Freeholders Mercer Co. surfacing Carter Rd., macadam on slag foundation. H. F. Harris, Court House, co. engr.; advertised in this issue. Noted May 26.

Pennsylvania—MacArthur Bros. Co., R. F. D. 5, Johnstown, Pa., or 120 Bway., New York City, receiving bids building 1 mi. one course rein.-con. pavement in western Pennsylvania; advertised in this issue.

Pennsylvania—Until Aug. 5, by State Highway Dept., Harrisburg, completing and reconstructing roads in following counties: Washington, Allegheny, Bucks, Butler, Cambria, Carbon, Centre, Chester, Crawford, Dauphin, Elk, Erie, Jefferson, Lackawanna, Lawrence, Luzerne, Lycoming, Mercer, Northumberland, Schuylkill, Sullivan, and Westmoreland. L. S. Sadler, state highway comr.; advertised in this issue.

Pa., Nanty-Glo—Until July 28, by R. C. McCullough, clk. Boro. Council, grading, paving and curbing 4,000 ft. 2nd., Chestnut, Roberts and Lloyd Sts., vitr. brick or concrete. About $50,000. D. E. Bradley, Trust Bldg., Ebensburg, engr.

Pa., Pittsburgh—Until July 27, by J. P. Moore, controller Allegheny Co. improving 2,225 ft. Lovedale Rd., 22 ft. wide, Elizabeth Boro. and Twp., 10,000 ft. Imperial and Clinton Rd., 18 ft. wide, Findlay Twp., 9 650 ft. Verona Rd., 25 ft. wide, Penn Twp., all foregoing to be paved with asphaltic concrete; 2,825 ft. Jacks Run Rd., 16 ft. wide, Ross Twp., Hillside brick; 10,-300 ft. Bakerstown and Warrendale Extension 2, 18 ft. wide, Pine and Marshall Twps., rein.-con.; 600 ft. Browns Hill Rd. 24 ft. wide, in city of Pittsburgh, brick block; 7,400 ft. Saxonburg Rd., 18 ft. wide, West Deer Twp., rein.-con.; reconstructing concrete culvert on Horning Rd., Baldwin Twp.

Pa., South Fork—Until Aug. 2, by W. Moore, clk. Boro. Council, paving. Maple, Grand and Court Sts., involving 4,474 sq.yd. brick on concrete base and 1,335 sq.yd. brick and slag base. Owen & Plummer, Inc., Otto Bldg., Johnstown, engrs.

Maryland—Until Aug. 2, by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving 1 mi. state highway, Montgomery Co., Contr. M-22; 2 mi. in Montgomery Co., Contr. M-27; 5 mi. in St. Marys Co., Contr. SM-15; 1.5 mi. in Dorchester Co., Contr. D-24. J. N. Mackall, chn.; advertised in this issue.

Virginia — Until July 27, by Assistant Highway Comr., 166 South 3d St., Richmond, building 7.67 mi. State Rd. 10 between Rice and Burkville, soil, Federal Aid Project 127, Prince Edward Co.; 3.113 mi. State Rd. 8 between Champlane and Caret, gravel, Federal Aid Project 119, Essex Co.; 4.16 mi. State Rd. 10 between Glenoar and Lafayette, waterbound macadam, Federal Aid Project 93, Roanoke Co.; 9.77 mi. State Rd. 10 between Farmville and Prospect, 1.53 mi. concrete road alternate bid on bituminous macadam, 8.24 mi. soil road, Federal Aid Project 76, Prince Edward Co.; 1.61 mi. State Rd. 11 between Norton and Big Stone Gap, concrete road and alternate bid on concrete base with penetration top, Federal Aid Project 131, Wise Co.; building concrete bridge over Ossamoosick Swamp, Southampton Co.; 3 rein.-con. bridges over Mason Creek, between Salem and Catawba, Roanoke Co. C. E. Bolling, Richmond, highway engr.

S. C., Charleston—Until Aug. 9, by Street Dept., for 110,000 sq.yd. sheet asphalt pavement. J. H. Dingle, city engr.

S. C., Greenville—Until Aug. 1, by Greenville Co., surfacing 1 mi. Natl. Highway from here to Greer, involving 2,183 cu.yd. excav., 10,560 sq.yd. concrete surfacing;

Streets and Roads (Continued)

1.36 mi. Dixie Highway from Sta. 0 0 to Sta. 72, 2,879 cu.yd. excav., 14 400 sq.yd. concrete surfacing. H. P. Dill, superv.

S. C., Saluda—Until July 27, by Saluda Co., surfacing 9.98 mi. Saluda-Greenwood Rd., involving 37,769 cu.yd. excav., 31,249 cu.yd. topsoil surfacing. J. S. Rogers, co. superv.

Alabama—Until Aug. 16, by State Highway Comn., Montgomery, surfacing 6 mi. Scottsboro-Huntsville Rd., between Woodville and Limrock, Jackson Co., involving 162.74 cu.yd. Class A, 104 cu.yd. Class B and 54.40 cu.yd. Class C concrete, 13,814 lb. reinforcing steel, 9,393 cu.yd. stone surfacing, etc. W. S. Keller, state highway engr.

La., Gretna—Until Aug. 2, by F. T. Payne, city engr., building 82,000 sq.yd. sidewalks.

Tennessee—Until Aug. 5, by State Dept. Highways, Nashville, building 19.54 mi. State Highway 11, between Paris and Kentucky State line, Federal Aid Project 10, Henry Co., Sect. A includes 11.23 mi. from Paris to Cottage Grove Rd., involving 68,245 cu.yd. common, 428 cu.yd. dry and 394 cu.yd. wet excav., 24.74 cu.yd. Special, 854.62 cu.yd. Class A and 120.63 cu.yd. Class B concrete, 504 lin.ft. 18-24 in. culvert pipe, 105,400 sq.yd. 7 in. chert surface (16 ft. pavement) or 79,050 sq.yd. 6 in. concrete pavement (12 ft. pavement); Sect. B includes 8.31 mi. from Cottage Grove Rd. to Kentucky State line, 38,817 cu.yd. common, 1,192 cu.yd. dry and 1,629 cu.yd. wet excav., 20,124 cu.yd. borrow, 74.56 cu.yd. Special, 1,589.43 cu.yd. Class A and 214.99 cu.yd. Class B concrete, 224 lin.ft. 18-30 in. pipe, 78,003 sq.yd. 7 in. chert surface (16 ft. pavement) or 58,502 sq.yd. 6 in. concrete pavement (12 ft. pavement). D. I. McComb, ch. engr.

Tenn., Memphis—Until July 26, by City Comn. paving 5 streets involving 26,000 yd. sheet asphalt on concrete foundation. About $171,000. W. B. Fowler, city engr.

Kentucky—Until July 28, by State Highway Comn., Old Capitol Bldg., Frankfort, shaping, draining and surfacing with rock asphalt, bituminous macadam penetration or waterbound macadam 1.4 mi. road, State Project 3, Sect. 4., in Scottsville, Allen Co., from east to southwest corporate limits, involving 1810 cu.yd. unclassified excav., 2222 sq.yd. scarifying and reshaping, 1924 cu.yd. borrow excav., 206 cu.yd. Class A concrete in headwalls and culverts, 70 cu. yd. 1:3:6 concrete for encasing, etc.; shaping, draining and surfacing with waterbound macadam, waterbound macadam surface treated, or bituminous macadam penetration type, 6.2 mi. Somerset-Stanford Rd., State. Project 22, Sect. A, Pulaski and Lincoln Counties, involving 6 acres clearing and grubbing, 33,127 cu.yd. earth, 1685 cu.yd. solid rock and 6480 cu.yd. borrow excav., 475 cu.yd. Class A, 3 cu.yd. Class B and 2 cu.yd. Class D concrete, etc. J. S. Boggs, state highway engr.

O., Cleveland — Until July 30, by Bd. Comrs. Cuyahoga Co. grading and paving Bway. Rd. 3, involving 15,400 sq.yd. granite block, 16,000 cu.yd. grading and 2.600 cu. yd. 6 in. concrete base, etc., cost $201,695; Bway. Rd. 2, 17,400 sq.yd. granite block, 17,500 cu.yd. grading and 3,000 cu.yd. 6 in. concrete base, $223,987. W. A. Stinchcomb, Court House, engr.

O., Cleveland — Until Aug. 3, by Bd. Comrs. Cuyahoga Co., grading, paving and building sewers on Drake and Hunt Rds., involving 14,540 cu.yd. grading, 29,500 cu. yd. 5 in. macadam and 33,150 ft. 4 in. sewers. About $127,088. W. A. Stinchcomb, Court House, engr.

O., Dayton—Until Aug. 2, by Comrs. Montgomery Co. paving Far Hills Ave. and Germantown St. Former bids rejected. P. S. Bookwalter, co. surv. Noted June 23.

Mich., Detroit—Until July 25, by Dept. Pub. Wks., grading and paving with sheet asphalt on 8 in. concrete base, Canton Ave. from East Grand Blvd. to Harper Ave., Cascade Ave. from Joy Rd. to Burlingame Ave., Ford Ave. from 12th St. to Wabash Ave., Farnsworth Ave. from Russell to Riopelle Sts., Hillger Ave. from Goethe to Mack Aves., Hamilton Ave. from Shoemaker to Harper Aves., Kerwin Ave. from Shoemaker to Harper Aves., St. Jean Ave. from Kercheval to Goethe Aves., Tuxedo Ave. from R. R. right of way to Linwood Ave., Wilson Ave. from Longfellow Ave. to Chicago Blvd., Webb Ave from Linwood to Dexter Aves, involving 30,656 cu.yd. excav., 55,267 sq.yd. sheet asphalt. C. W. Hubbell, city engr.

Ill., Benton—Until July 25, by city, paving Commercial, Madison and Joplin Sts., involving 11,191 sq.yd. concrete, 10,320 lin.ft. integral curbing and 6,050 cu.yd. earth excav. About $61,378. C. B. Mautz, city engr.

Ill., Quincy—City receiving bids paving various streets, vitr. brick on concrete base. About $40,000. L. L. Harper, Quincy, engr.

Wisconsin—Until July 27, by State Highway Comn., at div. office 5, Batavian Natl. Bank Bldg., LaCrosse, surfacing Alma-Mondovi Rd., Federal Aid Project 135, Sta. 0 to 192, Buffalo Co., involving 33,860 sq. yd. shale surfacing, 731 sq.yd. concrete surfacing, etc.

Wisconsin—Until July 28, by State Highway Comn., at div. office 9, Lancaster, grading and draining Dubuque-Platteville Rd., Federal Aid Project 100, Grant Co., involving 2,580 sq.yd. concrete surfacing; Bloomington-Lancaster Rd., Federal Aid Project 221, Grant Co., 5,651 sq.yd. concrete surfacing, 2,825 lin.ft. shoulders, 35 ft. span on Sta. 239 plus 17, 144.2 cu.yd. Class "A" concrete, 100 sq.yd. bituminous wearing surface; 1.16 mi. Sandy Hook Rd., Federal Aid Project 209, Grant Co., 739 cu.yd. earth excav., 122,747 cu.yd. borrow, 6,013 lin.ft. 8 x 8 ft. concrete curb, 7,198 sq.yd. concrete surfacing, 76,523 sq.ft. willow matting, 1,100 cu.yd featheredge gravel surfacing.

Ia., Greenfield—Until July 27, by Comrs. Adair Co., grading and surfacing with macadam, 4.08 mi. Primary Rd. 28, 16 ft. wide. About $60,000. Private plans.

Ia., Marshalltown—Until July 26, by Marshall Co., grading and draining Primary Rd. 6, Lincoln Highway. About $70,000. D. C. Elder, Marshalltown, engr.

Ia., Waverly—Until July 29, by Bremer Co., grading and draining 10.7 mi. Federal Aid Project 88, 16 ft. wide. About $150,000. C. A. Cool, Waverly, engr.

Minn., Duluth—Until Aug. 9, by W. H. Borgen, aud. St. Louis Co., surfacing with concrete 27 mi. road, 18 ft. wide, from Grand Rapids to county line at Keewatin. About $495,000. H. A. LeSeuer, Grand Rapids, engr.

Minn., Faribault—Until Aug. 16, by Rice Co., improving 10 mi. Job. 2104 State Rd. 20, 24 ft. wide, involving 6 acres clearing and grubbing, 82,000 cu.yd. earth, 3,000 cu.yd. loose rock and 3 200 cu.yd. solid rock excav., 109,814 cu.yd. overhaul, 250 cu.yd. concrete, 6,068 lin.ft. 12-24 in. concrete culverts or corrugated metal culverts, etc. About $33,000. J. C. McElherns, Faribault, engr.

Minn., Litchfield — Until July 25, by Meeker Co., improving 7 mi. State Rd. 4, Job 2101, between Dassel & Kingston, 24 ft. wide, involving 114,000 cu.yd. excav., etc.; 4 mi. State Rd. 4, Job 2103, between Union Grove and Swede Grove Twps., 25,415 cu.yd. excav., etc. G. H. Martz, Litchfield, engr. About $40,000.

Minn., Marshall—Until July 25, by Lyon Co., gravel surfacing 6 mi. Federal Aid Project 139, State Rd. 7, involving 1,750 cu.yd. stripping pit, 25,713 cu.yd. screening gravel, 31,560 linft. shaping and compacting. About $25,000. C. W. Anderson, Marshall, engr.

Kan., Council Grove—Until Aug. 10, by Comrs. Morris Co., paving, grading, draining and building bridges on 11 mi. Santa Fe Trail, 18 ft. wide, bituminous macadam, Federal Aid Project 62. About $350,000. Former bids rejected. J. McKenzie, Council Grove, engr. Noted May 5.

Kan., Iola—Until Aug. 12, Comrs. Allen Co., paving, grading, draining and building brdges on 4.018 mi. Ft. Scott-Wichita Highway, 18 ft. wide, concrete, Federal Aid Project 81. About $170,000. A. Stroup, Iola, engr.

Kan., Kansas City—Until July 27, by Comrs. Wyandotte Co., building 2.05 mi. Southwest Blvd., 18 ft. wide, concrete, brick or bituminous concrete, Federal Aid Project 85. About $75,000. O. K. Williamson, Kansas City, Mo., engr.

S. D., Watertown—Until Aug. 1, by city, paving 11 blocks, brick on concrete base. About $33,000. W. T. Cochrane, city engr. Noted June 9.

Missouri—Until July 29, by State Highway Dept., Bethany, building 22.54 mi. state road from Iowa state line southward through Eagleville, Federal and Project 130, Harrison Co., involving 125,133 cu.yd. earth excav., 14,545 cu.yd. borrow, 659.9 cu.yd. Class B and 287.7 cu.yd. Class C concrete masonry and 48,329 lb. reinforcing steel, etc. About $160,302. A. Graham, Jefferson City, state highway engr.

Mo., Hillsboro—Until July 30, by Jefferson Co. grading and gravel surfacing Project 20.64. About $25,208. Private plans.

Mo., Marshall—Until July 26, by city, care of C. D. Alexander, clk., paving Eastwood Ave., asphalt and macadam on concrete base. About $25,000. Shockley Eng. Co., Graphic Arts Bldg., Kansas City, engrs.

Utah, Ogden—City receiving bids grading and paving Distr. 131, 3 in. asphalt on 6 in. concrete base. About $55,000. J. M. Tracy, city engr.

Washington—Until Aug. 1, by State Highway Comn., Olympia, clearing grading, draining and paving with 1 course concrete 2 mi. Pacific Highway, from Island School House, south, Snohomish Co. J. Allen, state highway engr.

Cal., Modesto — Until July 29, by Bd. Supervs. Stanislaus Co., paving 4½ mi. Waterford Highway, topeka bitulithic or mastic type pavement.

Que., Montreal—Until July 27, by Chairman Administrative Comn., City Hall, paving two sections Cote St. Antoine Rd., cost $71,496, Belgrave Rd., $15,344, Vandome Ave., $13,165, all bituminous macadam. A. E. Doucet, dir. pub. wks.

Que., Montreal—Until Aug. 1, by Chairman Administrative Comn., City Hall, paving Cathcart, St. Julie, Emery, Viger, Perrault, Normand, Harvard and Wilson Sts., bituminous macadam. About $80,356. A. E. Doucet, dir. pub. wks.

Que., Montreal—Until Aug. 1, by Chairman Administrative Comn., City Hall, building 6 ft. sidewalks on Mansfield St., 4 ft. on Queen Mary and Cote St. Antoine Rds. and on Girourd and Beaconfield Aves., concrete. About $40,558. A. E. Doucet, dir. pub. wks.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Massachusetts—State Highway Dept., Boston, let contract paving 4,466 ft. state highway, 18 ft. wide, in Danvers, bituminous macadam, to W. A. Jones, Barnstable, $24,591.

★Massachusetts — State Highway Dept., Boston, received bids July 12 paving 8 880 ft. state highway in Brookfield and West Brookfield, rein.-con., from T. F. McGovern, 95 Main St., Southbridge, $90,467; Middlesex Constr. Co., Medford, $101,556; F. T. Ley Co., 495 Main St., Springfield, $102 230; 28,500 ft. in Winchendon and Templeton, bituminous macadam, from Henman & Rudiger, Sturbridge, $207,748; Lane Constr. Co., 37 Colony St., Meriden, Conn., $209,029; T. J. McCue, Watertown, $218 028. Noted July 7.

★Mass., Pittsfield—City let contract paving Bank Row, Park Row and East St. from City Hall to Wendall Ave., brick, to D. J. Walsh, 107 Fenn St. About $31,000. Noted July 14.

★New York—S. Sisson, comr. State Highway Dept. 55 Lancaster St., Capitol, Albany, let contracts improving 3.99 mi. Part 1, Rd. 8021-A, Cortland Co., and 4.35 mi. Highway 8020, Broome Co., to C. T. Hookway, Bastable Bldg., Syracuse, $108 690 and $179,590 respectively; 2.28 mi. Rd. 1582, Erie Co. and 3.36 mi. Rd. 1585, Ontario Co., to Greece Constr. Co., Rochester $67,488 and $126,955 respectively; 2.1 mi. Rd. 1583, Erie Co., to Peoples Paving Co., 85 Roms Ave., Buffalo, $67,570; 2.51 mi. Rd. 1589 Part 1, Madison Co. to A. L. Carey, Rome, $69,458; 10.49 mi. Rd. 8046, Madison and Oneida Counties, to Lane Constr. Corp., 37 Colony St., Meriden, Conn., $322,818; 1.7 mi. Rd. 5633 Part 2, Oneida Co., to L. D. Sullivan Co., Inc., Utica. $69,450; 0.61 mi. Rd. 1591, Saratoga Co., to F. F. Baker, Mechanicville, $29,902; 3.67 mi. Rd. 1587, St. Lawrence Co to Spellman-Oliver Co., Lake St., Chateaugay, $109,710; 7.19 mi. Rd. 1536, Ulster Co., to F. T. Ley Co., Inc., Main St., Springfield, Mass. $301,872; 0.82 mi. Rep. Con. 1306, Broome Co., to Griffin & Griffin, Norwich, $21,507; 3.3 mi. Rep. Cont. 1307, Essex Co. to J. J. Fredella, Glens Falls, $109,639; .82 mi. Rep. Con. 1315, Monroe Co., to Sweeney & Boland, Rochester, $31,684; 5.15 mi. Rep. Con. 1295, Orange Co. to Armstrong & Trowbridge, Phoenicia, $66,951; 2.2 mi. Rep. Con. 1308, Rockland Co., to C. Vanderbilt Contg. Co., Inc., West New Brighton, $73,647; 2.61 mi. Rep. Con. 1318, Saratoga Co., to G. F. Cook, Glens Falls, $48,334; 2.13 mi. Highway 5663, Chautauqua Co. to J. J. Hart, Pittsburgh, Pa., $161,548; 11.31 mi. Highway 8045, Fulton and Saratoga Counties, to Brown, Lowe & Law Bros., Herkimer $359,165; 3.69 mi. Highway 1586, Part 2, Erie Co., to T. J. McDermott, 194 Abbott Rd., Buffalo, $129,784; 0.93 mi. Highway 1590, Part 1, Madison Co., to Norwich Construction Co., Norwich, Conn., $33,993; 0.45 mi. Highway 1584, Nassau Co., to W. H. Grady, New York City, $18,948; 0.4 mi. Highways 1157-A and 1159-A Oneida Co., to H. A. Schaupp, Inc., Albany, $10,751; 2.82 mi. Highway 8047, Otsego Co., to Dale Eng. Co., Mann Bldg., Utica $107,352; 0.32 mi. Highway 5599-D, Ulster

Streets and Roads (Continued)

Co., to S. B. Van Wagenen, Rondout, $43,597; 44 mi. Rep. Con. 1316 Fulton and Montgomery Counties, to R. Wemple, Fultonville, $22,508; 3.49 mi. Rep. Con. 1317, Madison Co., to H. W. Roberts & Co., 610 Lansing St., Utica, $94 932; 1.04 mi. Rep. Con. 1312, Nassau Co., to E. M. Underhill & Son, Glen Cove, $14,504; 1.51 mi. Rep. Con. 1313, Ontario Co., to Hendrickson-McCabe Constr. Co. Inc., Syracuse, $42,935; 2 mi. Rep. Con. 1296, Orange Co., to Monticello Constr. Co., Monticello, $64,756; 68.44 mi. Rep. Con. 1309, Schuyler, Tompkins and Yates Counties, to P. D. Conley Constr. Co., Inc. 338 East State St., Ithaca, $29,709; 1.32 mi. Rep. Con. 1297, Suffolk Co., to World Industrials Corp., New York City, $48,477. Noted June 9 and 23.

★New York—State Highway Dept., 55 Lancaster St., Capitol, Albany, let contracts improving 1.32 mi. Fredonia Village; West Main St., Highway 5664, Chautauqua Co., to E. J. Bailey, Brocton, $82,340; 2.94 mi. Pennsylvania State Line—Westfield; Part 2, Highway 8044, Chautauqua Co., to Harrison Eng. & Constr. Co., Ellicott Sq., Buffalo, $109,140; 3.67 mi. Solon-Gee Brook, Part 2 and Gee Brook-Cincinnatus, Highway 8055, Cortland Co., to D. W. Robbins, Inc., Utica, $138,629; 4.98 mi. Deposit-Rock Rift, Part 1, Highway 8050, Delaware Co., to A. C. Sternberg, West Hartford, Conn., $216,488; 4.13 mi. Ashland-Windham, Highway 8051, Greene Co., to Schunnemunk Constr. Co. Highland Falls, $119.680; 3.98 mi. Cairo-Windham, Part 3, Highway 8053, Greene Co. and 6.45 mi. Massena-Winthrop Part 2, Highway 8057, St. Lawrence Co., to Lane Constr. Co., 37 Colony St., Meriden, Conn., $180,225 and $161,080 respectively; 3.2 mi. West Junius-Waterloo, Part 1, Highway 8056, Ontario and Seneca Counties, to E. W. Foley Contg. Corp., Waterloo, $106,058; 8.81 mi. Naples-Middlesex, Highway 8054, Ontario and Yates Counties, to Carey-Campbell Co., Inc., 90 Wall St., New York City, $338,167; 1.95 mi. De Freestville-West Sand Lake, Part 1, Highway 8058, Rensselaer Co., to Troy Paving Co., Troy, $87,210; 5.46 mi. Petersburg-North Petersburg, Highway 8059, Rensselaer Co., to D. J. Walsh, 311 North St., Pittsfield, Mass., $184,562; 5.74 mi. Canton Village: River St. Highway 1588, and Canton-Madrid, Part 1, Highway 8052, St. Lawrence Co., to H. P. Burgard Co., 1968 Fillmore Ave., Buffalo, $146,132; 4.03 mi. Addison-Rathbone, Highway 1598, Steuben Co., to F. J. Foote Co., Inc., Nunda, $147,363; 2.85 mi. Troupsburg-Centen-Jasper, Part 1, Highway 1599, Steuben Co., to W. L. Collins, Hornell, $76,210; 0.56 mi. County Highway 530, Rep. Con. 1325, Erie Co., to Green & Lanctot House Wrecking Inc., 326 Niagara St., Buffalo, $15,672; 0.81 mi. Highways 5020 and 5090, Rep. Con. 1310, Genesee Co., to Wing & Munger, Holley, $32,638; 3.66 mi. Highways 53, 54 and 520, Rep. Con. 1319, Westchester Co., to R. W. S. Corp., 30 Church St., New York City, $140,857; 3.33 mi. Rd. 1182, Rep. Con. 1324, Jefferson Co., to Bricon Constr. Co., Inc., Buffalo, $45,428. Noted June 30.

N. Y., Brooklyn — E. Riegelmann, boro pres., Boro Hall, opened bids July 13, regulating and paving (1) Lott Ave. from Bristol to Chester Sts., (2) Lott Ave. from Sackman to Powell Sts., (3) Malta St. from Hegeman to Lorraine Aves., (4) Osborn St. from Lott to Hegeman Aves., (5) Stone Ave. from Lott to New Lots Aves., (6) 78th St. from 18th to 20th Aves., asphalt on 6 in. concrete foundation; regulating and repaving (7) Decatur St. from Howard to Bushwick Aves., asphalt on present concrete foundation, (8) Conover St. from Sullivan to Wolcott Sts., (9) 82d St. from Narrows Ave. to Colonial Rd., asphalt on 6 in. concrete foundation, (10) Metropolitan Ave. from North 7th St. to Bushwick Ave. (11) Ocean Ave. from Woodruff Ave. to Dorchester Rd.; regulating and resurfacing (12) Sheepshead Bay Rd. from West 8th St. to Ocean Parkway; regulating, grading, curbing and laying sidewalks on (13) Dikeman St. from Dwight to Otsego Sts., (14) 78th St. from 18th to 20th Aves.; regulating and grading, (15) Malta St. from Lorraine to Stanley Aves., from

Borough Asphalt Co., 1301 Metropolitan Ave., (1) $3,732, (2) $3,378, (3) $8,032, (4) $7,817, (5) $9,783, (6) $18,158, (7) $30,573, (8) $12,850, (9) $9,759, (11) $196,461.

Uvalde Asphalt Paving Co., 1 Bway., New York City, (1) $4,266, (2) $3,834, (3) $9,080, (4) $8,782, (5) $10,879, (7) $33,093, (9) $10,297.

Cranford Co., 152 9th St., (1) $3,857, (2) $3,496, (3) $8,297, (4) $8,084, (5) $10,142, (6) $19,327, (7) $29,974, (9) $10,586, (11) $120,443.

Sicilian Asphalt Paving Co., 41 Park Row, New York City, (7) $29,197

Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (6) $14,102, (8) $9,626, (9) $7,941, (11) $76,073.

C. Gallagher, 745 Dean St., (12) $10,037.

M. J. O'Hara, 1228 Park Ave., New York City, (12) $11,518.

Welsh Bros. Contg. Co., 32 Queens St., Astoria, (10) $64,576.

M. I. Sachs, 246 South 9th St., (10) $66,312.

T. F. Mahr, (10) $66,233.

T. Walsh, 820 Classon Ave., (13) $885.

Williams Constr. Co., (13) $880, (14) $7,548.

Simonelli & Son, Inc., $896.

Grimm Constr. Co., 170 McKinley Ave., (15) $1,977.

Hygrade Builders Supply Co., 6th St. and 2d Ave., (15) $9,484.

L. Mangieri, 190 31st St., (14) $7,436.

P. Carbone, 95 Bay 25th St., (14) $7,618. Noted July 7.

N. Y., Brooklyn—Park Bd. at office of Dept. Parks, Municipal Bldg., New York City, opened bids Juy 14, improving Ocean Parkway between Coney Island Creek Bridge and Coney Island Concourse, from C. Gallagher, 745 Dean St., $24,899; M. J. O'Hara, 1228 Park Ave., New York City, $37,817; E. F. Monohan, 1921 Morris Ave., New York City, $41,889. Noted July 7.

★N. Y., New York—H. Bruckner, pres. Bronx Boro., let contracts to C. D. Beckwith, 301 West 108th St., regulating and grading, etc., Eagle Ave. from East 161st to East 163d Sts., cost $8,785, East 160th St., $4,162, Findlay Ave., $5,244; to C. F. Farrell Contg. Co., New York City, Seymour Ave., $2,971; to J. Meehan & Son, 74 Cortlandt St., Eagle Ave. from East 149th to East 161st Sts., $74,423; to R. Towers Co., Brook Ave., etc., $9,535; to Hastings Paving Co., 25 Broad St., East 180th St., $22,270; to Gross Contg. Co., Inc., East Tremont Ave., $10,300. Noted July 7 and 14.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., Municipal Bldg., received bids July 11, regulating and repaving (1) Hancock St. from Houston to Bleecker Sts.; widening and repaving (2) Lexington Ave. from 41st to 42nd Sts., (3) 36th St. from Madison Ave. to Bway., (4) 37th St. from 5th to 7th Aves., sheet asphalt on concrete foundation, from Cleveland Trinidad Paving Co., Flushing, (1) $9,303, (2) $12,506, (3) $44,575; Sicilian Asphalt Paving Co., 41 Park Row, (1) $10,233, (2) $11,895, (3) $52,011, (4) $49,218; C. D. Beckwith, 301 West 108th St., (2) $11,768, (3) $45,702, (4) $51,332. Noted July 7.

★N. Y., New York—Park Bd., at office of Dept. Parks, Municipal Bldg., let contract repaving Bronx and Pelham Parkways, etc., Bronx, to W. P. McDonald Constr. Co., 17 West 42d St., $89,527. Noted June 23.

★N. J., Lambertville — City let contract paving Main, York and Bridge Sts., asphalt, to J. F. Burke, 309 Park Ave., Plainfield. About $38,000. Noted June 30.

★Pennsylvania — State Highway Dept., Harrisburg, let contract building Route 94, Warren Co., to Standard Paving & Contg. Co., 1361 West Lake Ave., Lakewood, O., $340,616. Noted June 30.

★Pa., Pittsburgh—City let contract grading, paving and curbing Washington Blvd. to J. H. McQuade & Sons Co., Bakewell Bldg., $65,502; repaving Ward St. with asphalt, to M. O'Herron, 1st and McKean Sts., $31,984.

★W. Va., Harrisville—Ritchie Co. let contract grading and draining .64 mi. Cairo-Nutter Farm Rd., known as Shields Hill, Grant Dist., to N. Law, Cairo. Noted June 30.

★North Carolina—State Highway Dept., Raleigh, let contract clearing, grubbing, grading, bridging, and monolithic brick paving on cement mortar base, 9½ mi. road from Elizabeth City toward Winton, State Project 613, Pasquotank Co., to Pasquotank Co. Highway Comn., Elizabeth City. About $275,000.

★S. C., Columbia—Richland Co. let contract building 18.5 mi. Newberry Rd., concrete, to Chatham Paving Co., Savannah, Ga. $489,253.

★Alabama—State Highway Comn., Montgomery, let contract grading, draining and surfacing 3.48 mi. Alexander City-Jackson Gap Rd., Project 78-A, Tallapoosa Co., involving (a) 24,930 cu.yd. common excav., (b) 3,097 cu.yd. solid rock excav., (c) 32,685 sq.yd. bituminous macadam surfacing 2½ in. penetration, (d) 7,265 cu.yd. slag base 1 mi. haul, (e) 21,600 cu.yd. slag base ½ mi. additional haul, to L. C. Rawlinson, Bell Bldg., Montgomery, (a) $0.35, (b) $1.50 (c) $1.15, (d) $2.50, (e) $0.20, etc., total $78,139. Noted July 21.

★Louisiana—State Highway Dept., New Orleans, let contract gravel surfacing 10.02 mi. Melville-Palmetto Highway, Sects. B and C, Project 19, Landey Parish, to S. A. Gano, Room 215, Maison Blanche Bldg. About $33,000.

★O., Akron—Director Pub. Serv. let contracts resurfacing Main St., involving 9,150 sq.yd. asphalt, 4,000 lin.ft. curbing and 1,150 ton binder also paving Noah and Diagonal Rds., 6,190 sq.yd. asphalt on concrete base, 3,360 lin.ft. curbing, to Columbus Asphalt Paving Co., 708-2nd Natl. Bldg., $41,402 and $38,573 respectively; resurfacing Wooster Ave., 11,240 sq.yd. asphalt and 2,000 sq.yd. concrete base, to T. E. McShaffrey Co., Forge St., $58,654.

O., Cleveland—City received bids grading and paving grade crossing eleminations along New York, Chicago & St. Louis Ry. from Detroit to Fulton Rds., involving 134,000 sq.ft. brick and 24,200 sq.ft. granite block, 8,200 yd. grading, 121,900 sq.ft. concrete base and 7,000 lin.ft. 20 in. stone curbing, etc., from Roehl Bros., West 25th St. and Clark Ave., $122,877; Rieley Bros., The Arcade, $123,076.

★O., Cleveland—Cuyahoga Co. let contract improving Wallings Rd., to Ohio Constr. Co., Elyria, $79,615. Noted July 7.

★O., Cleveland Heights (Warrensville P. O.)—J. A. Wigmore & Co., East 13th St. and Euclid Ave., Cleveland, let contract grading, curbing and paving Meadowbrook Blvd. and Kildare Rd., involving 10,550 sq. yd. asphalt, 3,500 cu.yd. grading, 94,950 sq.ft. 6 in. concrete base, etc., to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $24,906 and $26,734 respectively. Noted July 14.

★O., Columbus—W. H. Duffy, dir. Pub. Serv. let contract grading, draining, curbing and paving 1,735 ft. Broad St. from Anson to Sandusky Sts., asphalt, to Franklin Asphalt Paving Co., 209 South High St., $43,911. Noted July 7.

★O., East Cleveland (Cleveland P. O.)—City let contract grading and paving Grayton Rd., Helmsdale, Caledonia and Shawview Aves., to Cleveland Trinidad Paving Co., The Arcade, Cleveland. About $35,000. Noted July 7.

★Mich., Charlotte—State Highway Dept., at office Bd. Rd. Comrs. Eaton Co., let contract grading, draining and surfacing State Trunk Line Rd. 29-2, Sect. B, to Williston Constr. Co., South Bend, Ind., $26,453. Noted June 23.

★Mich., Detroit—City let contract paving John R. St. from Six Mile Rd. to Seven Mile Rd., sheet asphalt on 8 in. concrete foundation, Amherst or Berea curbstone, to G. R. Cooke, 1260 Penobscot Bldg., $132,255. Noted July 7.

Mich., Detroit—City received bids grading and paving with sheet asphalt on 8 in. concrete base following avenues: (1) American, (2) Anderdon, (3) Arlington, (4) Army, (5) Baylis, (6) Collingwood, (7) Charlevoix, (8) Cavalry, (9) Emmons, (10) Highland, (11) Ladue, (12) Lawrence, (13) Medbury, (14) May, (15) Monica, (16) Montclair, (17) Piquette, (18) Prairie, (19) Raymond, (20) Sturtevant, (21) Stoepel, (22) Stair, (23) Taylor, (24) Woodside, from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $15,370, (2) $39,167, (3) $49,426, (4) $21,749, (5) $46,491, (6) $9,553, (7) $88,282, (8) $43,706, (9) $11,853, (10) $4,678, (11) $8,433, (12) $23,158, (13) $9,853, (14) $7,019, (15) $13,715, (16) $34,017, (17) $21,451, (18) $40,553, (19) $6,639, (20) $24,824, (21) $16 615, (22) $24,925, (23) $33,711, (24) $19,952; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $15,524, (2) $40,024, (3) $49,907, (4) $22,048, (5) $45,603, (6) $9,644, (7) $89,420, (8) $44,057, (9) $11,931, (10) $4,605, (11) $8,503, (12) $22,738, (13) $10,102, (14) $7,097, (15) $13,842, (16) $34,622, (17) $21,831, (18) $41,070, (19) $6,720, (20) $24,230, (21) $16,778, (22) $25,025, (23) $33,373, (24) $20,153. Noted June 23 and 30.

Mich., Port Huron—State Highway Dept. at dist. office, Port Huron, let contract grading and surfacing 5.72 mi. State Trunk Line Rd. 27-13, St. Clair Co., to J. C. O'Conner & Sons, Ft. Wayne, Ind. Work involves 301 sta. grading, $20, 60,279 sq.yd. concrete, $2.62. Total cost $163,961. Noted June 30.

★Mich., Mason—State Highway Dept. at office Bd. Rd. Comrs. Ingham Co., let contract grading, draining and surfacing 1.347 mi. State Trunk Line Rd. 14-34, to W. H. Ryan, Jackson. Work involves 8,095 cu.yd. excav., $1, 15,785 sq.yd. concrete, $2.86. Total cost $58,588. Noted June 30.

★Mich., Sheboygan — State Highway Dept., at office Bd. Rd. Comrs., Sheboygan Co., let contract grading, draining and surfacing 1.478 mi. State Trunk Line Rd. 10-15, to J. E. Johnson, Schirmer Bldg., Saginaw; work involves 3,455 cu.yd. excav., $0.75, 198 lin.ft. 12 in. encased tile culvert, $2.25, 16,424 sq.yd. concrete pavement, $2.63, total cost $51,749; 5.146 mi. State Trunk Line Rd. 18-1, Sect. B, involving

Streets and Roads (Continued)

23,343 cu.yd. excav., 48,166 sq.yd. gravel, to Beaverton Constr. Co., Beaverton, $42,662.

Illinois—Dept. Pub. Wks. and Buildings. Div. Highways, Springfield, received bids July 12 paving (1) 3.81 mi. Route 1, Sect. 1, Clarke Co., (2) 2.99 mi. Route 2, Sect. 1, Jackson Co., (3) 5.99 mi. Route 2, Sect. 7, Perry-Washington Co., (4) 5.14 mi. Route 2, Sect. 8, Washington Co., (5) 11.13 mi. Route 2, Combination A, Perry-Washington Co., (6) 3.43 mi. Route 2, Sect. 18, Alexander Co., (7) 6.25 mi. Route 4, Sect. 10, Livingston Co., (8) 5.68 mi. Route 4, Sect. 12, Livingston Co., (9) 7.95 mi. Route 4, Sect. 13, McLean-Livingston Co., (10) 13.63 mi. Route 4, Combination B, McLean-Livingston Co., (11) 19.88 mi. Route 4, Combination C, McLean-Livingston Co., (12) 7.28 mi. Route 5, Sect. 11, McHenry Co., (13) 6.12 mi. Route 5, Sect. 12, McHenry Co., (14) 13.4 mi. Route 5, Combination D, McHenry Co., (15) 3.98 mi. Route 5, Sect. 13, Boone Co., (16) 4.43 mi. Route 5, Sect. 14, Boone Co., (17) 3.09 mi. Route 5, Sect. 15, Boone Co., (18) 11.5 mi. Route 5, Combination E, Boone Co., (19) 24.9 mi. Route 5, Combination F, McHenry-Boone Co., (20) 2.98 mi. Route 7, Sect. 1, Rock Island Co., (21) 2.54 mi. Route, 7, Sect. 2, Henry Co., (22) 5.52 mi. Route 7, Combination G, Rock Island-Henry Co., (23) 8.44 mi. Route 7, Sect. 4, Henry Co., (24) 2.38 mi. Route 10, Sect. 11, Champaign Co., (25) 4.93 mi. Route 10, Sect. 2, Champaign Co., (26) 5.04 mi. Route 10, Sect. 3, Champaign Co., (27) 12.35 mi. Route 10, Combination H, Champaign Co., (28) 3.58 mi. Route 10, Sect. 13, Macon Co., (29) 3.63 mi. Route 10, Sect. 14, Macon Co., (30) 3.95 mi. Route 10, Sect. 15, Macon Co., (31) 11.16 mi. Route 10, Combination L, Macon Co., (32) 6.12 mi. Route 10, Sect. 24, Sangamon-Morgan Co., (33) 6.42 mi. Route 10, Sect. 25, Morgan Co., (34) 12.54 mi. Route 10, Combination J, Sangamon-Morgan Co., (35) 3.41 mi. Route 25, Sect. 1,Effingham Co., (36) 5.24 mi. Route 28, Sect. 1, Knox Co., (37) 4.73 mi. Route 28, Sect. 2, Knox Co., (38) 9.97 mi. Route 28, Combination K, Knox Co., (39) 4.36 mi. Route 31, Sect. 7, Brown Co., from

Arnold & Co., Casey, (1) $75,736.

A. J. Parrish, Paris, (1) $81,896.

J. W. Etchison, Casey, (1) $84,909, (35) $59,943.

L. Rich Constr. Co., 429 Missouri Ave., East St. Louis, (2) $90,207, (3) $160,889, (4) $143,440, (5) $302,000.

Hamilton Constr. Co., Carbondale, (2) $95,030.

Madison Constr. Co., Edwardsville, (2) $95,914.

Barnes & Varhey Constr. Co., Effingham, (3))$164,534, (4) $148,545, (5) $300,460, (5) $106,871, (24) $50,980, (25) $106,871, (26) $111,999, (27) $260,000.

H. H. Hall Constr. Co., Murphy Bldg., East St. Louis, (4) $191,198, (5) $356,000.

J. Kesl & Son, Edwardsville, (4) $166,711.

F. T. Williams, Decatur, (6) $69,868.

G. Biergois, Cairo, (6) $73,435.

Cameron Joyce & Co., Keokuk, Ia., (6) $74,394, (7) $151,056, (8) $165,793, (9) $197,143, (22) $141,384, (24) $56,549, (25) $109,818, (26) $114,746, (27) $276 345, (28) $85,973, (29) $86,985, (30) $95,106, (31) $266,065, (32) $160,042, (37) $116,648, (39) $114,863.

C. J. Moritz, Inc., Effingham, (7) $192,982, (9) $212,238.

C. E. Carson Co., 155 North Clark St., Chicago, (7) $192,214, (8) $197,212, (11) $630,000, (18) $300,000.

J. H. Dunnegan Shenendoah, Ia., (8) $183,993, (9) $221,139, (10) $395,000, (13) $137,244, (15) $87,203, (20) $73,191, (21) $57,331, (22) $125,000, (23) $206 319, (36) $125,634, (37) $114,579, (38) $239,500.

Bates & Rogers Constr. Co., 38 West Van Buren St., Chicago, (11) $581,864, (14) $391,339, (18) $306,641, (19) $107,367, (38) $287,961.

F. P. Nelson, 1753 Franklin St., Racine, Wis., (12) $165,000, (13) $129,098, (16) $111,512, (17) $64,636.

Federal Paving Co., 133 West Washington St., Chicago (12) $185,578, (13) $129,281, (15) $88,074, (17) $64,351, (19) $569,999, (21) $62,678, (39) $164,853.

R. R. Birdsall, Racine, Wis., (14) $332,283, (18) $291 951.

Boone Co. Bd., Rockford, (15) $91,548, (16) $113,067, (17) $68,392.

Hart & Page, 110 North Court St., Rockford, (16) $112,937.

Central Eng. Co., 711 Putnam Bldg., Davenport, Ia., (20) $82 392, (21) $63,374, (22) $143,000, (23) $228,224.

A. F. Crenkenschua, Rock Island, (20) $82,435.

Keokuk Quarry & Contg. Co., Keokuk, (23) $228,667, (39) $120,611.

C. E. Jouard, Montezuma, Inc., (24) $53 894, (25) $111,778.

C. W. Clark, Clinton, Ind., (26) $115,860.

W. C. Mensely, Frankfort, Md., (27) $280,000.

Macon Co. Bd., Court House, Decatur, (28) $73,966, (29) $75,211, (30) $80,992.

R. T. Williams, Wyatt, Mo., (28) $89,450, (29) $91,035, (30) $98,196.

W. D. Louergau, New Madrid, Mo., (32) $140,455, (33) $148,173, (34) $288,629.

Unit Constr. Co., Title Guaranty Bldg., St. Louis, Mo., (32) $146 480, (33) $151,399, (34) $297,879.

H. K. Rhodes, Lincoln, (33) $166,739, (34) $322,212.

Fennell & Toothaker, Fairfield, (35) $59,774.

J. Mackler & Co., Chicago Heights, (36) $128,224.

L. S. Kuhn, Bloomington, (36) $131,798, (37) $120,151, (38) $223,501. Noted July 7.

★Ill., Bloomington—City let contract paving 4.67 mi. various streets, 24 ft. wide, vitr. brick on concrete base, to I. D. Latin, Bloomington. About $120 000.

★Ill., Joliet—City let contract paving Glenwood Ave., asphalt on concrete base, concrete curbs and gutters, to J. V. McCarthy Co., Joliet. About $25,000. Noted June 30.

Wisconsin—State Highway Comn., at div. office 1, 149 East Wilson St., Madison, received bids July 14, grading and surfacing 2.98 mi. Reedsburg-LaValle Rd., Federal Aid Project 175, involving (a) 1.5 acres clearing and grubbing (b) 20,842 cu. yd. earth excav., (c) 5,056 cu.yd. surfacing, (d) 311.5 cu.yd. Class A concrete in culverts, (e) 325.5 cu.yd. Class A concrete in bridges, from Garvey & Weyenburg Co., 812 College St., Appleton, (a) $200, (b) $0.60, (d) $25.25, (e) $27.20, etc., total $32,269, M. O. Carter, Richland Center, (a) $150, (b) $0.56, (c) $1.45, (d) $19.50, (e) $23, etc., total $36,108, McGucken Constr. Co., 425 East Water St., Milwaukee, (a) $150, (b) $0.55, (d) $22, (e) $25., etc., total $37,567; 8 mi. Middleton-Cross Plains Rd., Federal Aid Project 200, (a) 2.5 acres clearing and grubbing, (b) 45,139 cu.yd. earth excav., (c) 778 cu.yd. cement in place, (d) 518.7 cu.yd. Class A concrete in culverts, from Hoffman & Meek, Black River Falls, (a) $75, (b) $0.49, (c) $2.25, (d) $18.875, etc., total $23,416, W. McGavock, Beloit, (a) $170, (b) $0.53, (d) $21.50, etc., total $45,526, J. Marsh, 1307 Wrightwood Ave., Chicago, (a) $100, (b) $0.54, (c) $2.60, (d) $23, etc., total $48,695. Noted July 7.

★Wis., Fond du Lac—Fond du Lac Co. let contract concrete surfacing State Trunk Highway 23, to Vanderboom & Sons, 115 19th St., Milwaukee, $58,721.

★Wis., Kenosha—Wisconsin Gas & Electric Co., Pub. Serv. Bldg., Milwaukee, let contract paving 2,000 lin.ft. Main St. from Grand Ave. to South St., brick and creosoted blocks, to J. Cape & Sons, 468 Water St., Racine. Noted March 31.

★Wis., Waukesha—Waukesha Co. State Rd. and Bridge Comn. let contract building Oconomowoc Co. line road involving 12,200 sq.yd. concrete surfacing, 3,741 cu.yd. grading, 21.7 cu.yd. concrete in culverts, to J. R. Griffity, Racine, $35,060.

Wis., West Allis—City received bids paving with asphalt, rein.-con. or vibrolithic 48th, 53rd, 61st, 66th, 67th and National Aves., involving (1) 32,156 sq.yd. asphalt, (2) 14,491 cu.yd. grading, etc., (3) 35,955 sq.yd. rein.-con. or vibrolithic, from White Constr. Co., Trust Co. Bldg., Milwaukee, (1) standard $3.60 and $3.40, (light traffic) $3.40 and $3.15, etc., (2) $1; Milwaukee General Constr. Co., (2) $1.20, (3) $2.67 and $2.87. Noted June 29.

★Ia., Boone—Boone Co. let contract paving primary road from Greene Co. line to Ogden, to W. V. Flynn, Grimes. About $65,000. Noted July 14.

★Ia., Des Moines—City let contract grading and paving Southwest 12th St. from Watrous to Park Aves., brick, to W. Wright, 2416 East Walnut St. About $25,000.

★Ia., Manchester—Delaware Co. let contract grading and gravel surfacing 12.444 mi. Dyersville-Manchester Primary Rd., to Beyers & Wilson, Peoria, Ill. About $180,000. Noted June 23.

★Minn., St. Paul—City let contracts paving Hastings Ave. from Earl St. to Port Douglas Rd. and repaving Port Douglas Rd. from Hastings Ave. to south city limits, crushed rock, to Hanlon & Okes, 338 Lumber Exch. Bldg., Minneapolis, $168,370; draining Hastings Ave. from Eral St. to Point Douglas Rd., involving 2,931 ft. 12-36 in. Class "A" corrugated metal pipe, to Lyle Culvert & Rd. Equipment Co., 171 27th Ave., S. E., Minneapolis, about $7,191; 2,186 ft. 6-15 in. vitr. clay pipe and 275 bbl. portland cement, to Gopher Lime & Cement Co., Griggs and Fuller Sts., $1,792 and $2.55 delivered; 225 cu.yd. screened gravel and 150 cu.yd. screened sand, to Conroy-Clewett Co., Globe Bldg., $2.90 and $1.70 per cu.yd. delivered. Noted June 29.

Minn., St. Paul—City received bids paving Jefferson Ave. from Snelling to Fredericks Aves., asphaltic concrete, from Fielding & Shepley, 216 University Ave., $27,449; Maryland St. from Payne to Duluth Aves., clay bricks, from Feyen Constr. Co., 277 Burgess St., $74,645; Fielding & Shepley, 216 University Ave., $80,664; Schruth & Jackson, 633 Plymouth Bldg., Minneapolis, $81,109. Noted June 29.

★Minn., St. Paul—Ramsey Co. let contract grading and paving 2 mi. Larpenteur Ave. from Snelling Ave. to county line, concrete, to E. M. Ganley Co., 1002 Plymouth Bldg., Minneapolis, $50,826. Noted July 14.

★Kan., Girard—Crawford Co. let contract paving and draining 1.979 mi. Walnut-Englevale Rd., 18 ft. wide, and 2.034 mi. Croweberg-Mulberry Rd., 18 ft. wide, to W. S. Fisher, Oswego, $8,514 and $17,221 respectively.

★N. D., Grand Forks—City let contract paving 50,000 sq.yd. various streets, to Northern Constr. Co., 9 North 8th St. About $244,000. Noted June 16.

★N. D., Minot—Ward Co. let contract grading 18 mi. state highway, west of here, to Stevens Bros., 15 Piedmont Bldg., St. Paul, Minn., $81,189.

Wyoming—State Highway Comn., Cheyenne, received bids earth grading 26 mi. Wind River Project, 16 ft. wide, Lincoln and Fremont Counties, from Wickham Bros. & Schweiger, 19 Scott St., Council Bluffs, Ia., $94,583; M. A. Wogan, United States Natl. Bank Bldg., Denver, Colo., $103,352; Shirrock & Purcell, Casper, $105,082.

Missouri—State Highway Dept., St. Genevieve opens bids July 9, building 2.44 mi. state road from Bloomsdale northwestward, State Aid Project S 20.31 St. Genevieve Co., involving (1) 9,697 cu.yd. earth excav., (2) 6,644 cu.yd. rock excav., (3) 1,669 cu.yd. borrow, (4) 79.2 cu.yd. Class B concrete masonry, (5) 55.1 cu.yd. Class C concrete masonry, etc., from S. P. Reynolds Carruthersville, (1) $0.49, (2) $2.40, (3) $0.50, (4) $21 (5) $21, total cost $26,348; L. Rich Constr. Co., 429 Missouri Ave., East St. Louis, Ill., (1) $0.50, (2) $2.25, (3) $0.70, (4) $25, (5) $25, $26,378; F. J. Kersting, Jefferson City, (1) $0.40, (2) $2.20, (3) $0.90, (4) $30, (5) $30, $26 433.

★Mo., Sedalia—City will grade and drain Barrett Ave. About $25,000. Work will be done by day labor. N. L. Nelson, city clk. Private plans.

★Mo., Williamsburg—Calloway Co. (Fulton) let contract surfacing Calloway Rd., macadam, to J. L. Moss Clayton, $32,477.

Tex., Brenham—Washington Co. received bids clearing, grubbing, grading gravel surfacing, draining and building bridges on (1) 16.81 mi. Austin-Houston Highway from here to Fayette Co. line; (2) 14.14 mi. State Highway 20, from here to Waller Co. line, (a) gravel and 1¼ in. bituminous top, (b) 1¼ in. bituminous top and part concrete, (c) bituminonus gravel with concrete curb or (d) concrete pavement throughout; from Smith Bros., Crockett, (1a) $430,815 (1b) $447,650, (1c) $499,221, (2a) $335,814, (2b) $361,844 (2d) $419,405; McClung Constr. Co., Clebourne, (1a) $447,077, (1b) $464,243, (1d) $462,347, (2a) $348,341 (2b) $373,691 (2d) $338,147.

★Tex., Gonzales—Gonzales Co. let contract grading, graveling and building steel bridges on 12.4 mi. Highway 29, 15 ft. wide, to W. E. Dozier, Austin Natl. Bank Bldg., Austin, $97,275.

★Tex. Wichita Falls—City let contracts paving .5 mi. (a) Elizabeth and Holliday Sts., (b) 6th St., uvalde rock asphalt and concrete, to Roberts Bros. Constr. Co., Wichita Falls, (a) $46,889; L. E. Whithan & Co., Wichita Falls, (b) $7,013; Fillmore St., bitulithic, to Texas Bitulithic Co., 1101 Praetorian Bldg., Dallas, $37,198. Noted July 7.

★Tex., Wichita Falls—Wichita Co. will pave 17.147 mi. State Highway 5 from Iowa Park west to Wilbarger Co. line, involving 117,168 sq.yd. plain concrete, 64,544 sq.yd. 1 course rein.-con., 181,512 sq.yd. plain and rein.-con. Cost $700,097 including 10% for engineering and contingencies. Work will be done by day labor.

★Washington—State Highway Comn., Olympia, let contracts clearing, grading and draining 6.8 mi. Pacific Highway, Kelso to Kalama, Cowlitz Co., involving 25,500 cu.yd. earth, 5,200 cu.yd. rock and 27,610 cu.yd. solid rock excav., 125,000 cu. yd. overhaul and 6.1 acres clearing, to Ray & Leydell, Lewis Bldg., Portland, Ore., $64,761; 9.5 mi. Inland Empire Highway, Buena to Granger, Yakima Co., 54,311 cu. yd. common excav., 67,020 cu.yd. overhaul, 6,900 lb. steel reinforcing bars, to Sloane

Streets and Roads (Continued)

Constr. Co., Columbia Bldg., Spokane, $32,258; clearing, grading, draining and paving with concrete 4.8 mi. Pacific Highway, La-Center to Woodland, Clarke Co., 62,440 cu. yd. common excav., 5 acres clearing, 3.7 acres grubbing, 56,241 sq.yd. concrete paving, 25,397 lin.ft. finishing shoulders and ditches, 51,000 lb. reinforcing pavement No. 2, to United Constr. Co., North Bank Bldg., Portland, Ore., $230,698; surfacing with crushed gravel 0.9 mi. Naches Pass Highway, The Dallas to White River, Pierce Co., 20,000 cu.yd. crushed gravel surfacing, to Sloane Constr. Co., Columbia Bldg., Spokane, $39,000.

Wash., Seattle—City received bids July 9, grading East 40th St., et. al., involving 180,000 cu.yd. earth excav. and 900 lin.ft. type G concrete curb, from J. L. Smith, Pioneer Bldg., $27,807; R. G. Stevenson 1327 Ewing St., $32,094; M. Richardson, 6307 12th St., N. E., $32,344.

★**New Mexico**—State Highway Comn., Santa Fe, let contracts paving (1) 47.734 mi. state highway across Lea Co. east of Roswell, Federal Aid Project 30, Lea Co., (2) 14.507 mi. between Farmington and Aztoc, Federal Aid Project 35, San Juan Co., (3) 11.277 mi. in Datil Canyon, Federal Aid Project 52, Socorro Co., (4) 35.671 mi. between Lucy and Encino, Federal Aid Project 53, Torrance Co., (5) 57.865 mi. between Clayton and Gladstone, Federal Aid Project 58, Union Co., (6) 54.171 mi. between Clayton and Nara Visa, Federal Aid Project 59, Union Co., to Allhands & Davis, Cleburne, Tex., (1) $46,707; Mishou, Clark & Teyssier, Pueblo, Col., (2) $68,506; J. V. Stryker Constr. Co., 1507 Blake St., Denver, Col., (3) $58,363, (4) $41,625, (6) $74,194; Peterson, Shirley & Gunther, Omaha, Neb., (5) $69.84.

California—State Highway Comn., 515 Forum Bldg., Sacramento, receives bids July 11 grading 10.61 mi. state highway between Weaverville and Tom Long Gulch, Federal Aid Project 81, Trinity Co., involving (a) 120,000 cu. yd. excav., (b) 730 cu.yd. Class A Portland cement concrete, (c) 1,700 cu.yd. rubble masonry (retaining walls) (d) 950 cu.yd. dry rubble, etc., from Chadwick & Sykes, Crocker Bldg., San Francisco, (a) $0.89 (b) $35 (c) $12 (d) $7.50, etc., total, $172,076 P. L. Burr, 512 Misn. Ave., San Francisco, (a) $0.94 (b) $32 (c) $12 (d) $8, total $173,994, Palmer & McBryde, San Francisco, (a) $1, (b) $27.50, (c) $10, (d) $8., total $174,213, constructing rein.-con. bridge across Susan River, near Johnstonville, Lassen Co., involving (a) 110 cu.yd. excav., (b) 165 cu.yd. Class A concrete etc. from C. H. Gildersleeve, Fresno, (a) $2, (b) $35, etc., total $7,825. Jenkins & Elton, Sacramento, (a) $6.35 (b) $40, etc., total $8,963, J. G. Leibert, San Francisco, (a) $18.24 (b) $34.95, etc. total $9,437. Noted June 30.

Cal., El Monte — Bd. Trustees received bids July 7 paving Main St. and eight other streets, concrete, from H. M. Hannawalt, La Verne, $51,522; W. Liddington, 420 East 60th St., Los Angeles, $54,961. Noted June 23.

Cal., Los Angeles—Bd. Supervs. Los Angeles Co. received bids July 11 paving 3¼ mi. Anaheim-Spadra Rd., Brea Canyon, concrete, from Sierra Constr. Co., 1743 Garfield Pl., $84,854; G. H. Oswald, 366 East 58th St., $88,605; G. S. Benson, 247 Douglas Bldg., $90,999 Noted June 30.

★**Cal., Los Angeles** — City let contract paving Fawn Ave. to point 1,080 ft. northeast of Reservoir St., oil macadam, involving 57,417 sq.ft. oiling and rolling, 568 sq. ft. concrete, 8,971 sq.ft. concrete gutters, 11,915 sq.ft. cement sidewalks and 4,421 lin.ft. cement curbs, to M. S. Cummings, 1302 West 22d St., $28,830.

★**Que., Montreal**—City let contracts to Sicily Asphaltum Paving Co., 60 St. Viateur St., paving Bronsam, Anita and Emma Sts., asphalt, also cement sidewalks on Anita and Emma Sts., $19,767, Laurier Ave., asphalt, $49,100, Cartier, De Bresoles, St. Maurice and Bonaparte Sts., asphalt, $27,990, Sanguinet St., asphalt, $48,045, to Duranceau & Duranceau, 152 Hamilton St., cement sidewalks on Benoi St., $25,937.

★**Ont., Ottawa**—Bd. Control let contract paving Somerset St. from Bank to Bay Sts., asphalt, to Standard Paving Co., Elgin St., $65,824. Noted May 12.

★**Ont., Sturgeon Falls**—See "Waterworks."

Railways

PROPOSED WORK

Ontario — London & Port Stanley Ry., Philip St., London, plans to build 3 new sidings in Port Stanley for handling coal traffic. About $25,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**New York**—Transit Comn., 49 Lafayette St., New York City, let contract installing tracks in Eastern Dist. Yard, Brooklyn, Order No. 21, to Ramato Iron Wks., 30 Church St., New York City, $29,963. Noted June 9.

Excavation and Dredging

PROPOSED WORK

Ia., Bedford—Excavation—Taylor Co. rejected bids opened July 12, excavating channel in Platte River, D. D. 4; 6 mi. long, involving 495,000 cu.yd. excav. About $50,000. A. J. Van Sise, Bedford, engr. Noted July 7.

Ia., Mt. Ayr—Excavation—Ringgold Co. rejected bids opened July 11, building new channel, Platte River, D. D. 2, 3 mi. long, involving 273,000 cu.yd. excav. About $28,000. Noted July 7.

Mont., Red Lodge—Irrigation—East Side Irrigation Dist. of Clark Fork Valley, having plans prepared for system to irrigate about 7,000 acres. About $375,000. J. B. Meyers, Belfrey, secy. S. C. Kimball, Red Lodge, engr.

BIDS DESIRED

Minn., St. Peter—Ditch—Until July 25, by Nicolett Co., building Co. Ditch 71, involving 15,885 lin.ft. open work, 49,864 cu. yd. excav. and 44,550 lin.ft. 8-24 in. tile, About $43,823. R. H. Allison, Monkato, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., New York—Dredging—M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., Pl., North River, opened bids July 15, dredging outshore portion of Brooklyn Bridge Impvt., Boro. of Manhattan, Contr. 1694, from New Jersey Shipbuilding & Dredging Corp., foot of 28th St., Bayonne, N. J., $0.31⅝ per cu.yd., total cost $31,625; Morris & Cummings Dredging Co., 17 State St., $0.38 6/10, $38 600; E. Breyman, $0.45, $45,000. Noted July 7.

Wis., Milwaukee — Dredging — Harbor Comn. received bids July 11, for (1) 431,000 cu.yd. dredging along west side of Jones Island, (2) removal of wrecks, from Cleveland Eng. Constr. Co., 778 The Arcade, Cleveland, O. (1) $0.2475, (2) $10,000; Zenith Dredging Co., 303 Glencoe Bldg., Duluth, Minn., (1) $0.2925, (2) $27,000; Duluth Superior Dredging Co., foot 45th Ave., W. Duluth, (1) $0.293, (2) $14,000. Noted June 23.

★**Minn., Redwood Falls**—Ditch—Redwood Co. let following contracts building Ditch 72 and 40-A; hauling and labor for Ditch 72, to A. Olson, Murdock, $1.65 per ton for haul and $16,375 for labor; hauling and labor for Ditch 40-A, to Trefsy & Hendrickson, Redwood Falls, $1.02 and $1,610 respectively; all tile from 6-12 in., to Mason City Brick & Tile Co., Mason City, $7,077; 14-28 in., to Iowa Pipe & Tile Co., East 4th and Hayes Sts., Des Moines, $17,950. Noted June 16.

Industrial Works

PROPOSED WORK

Conn., Bridgeport—Amer. Tube & Stamping Co., 471 Hancock Ave., plans to build large 1 story, brick and steel addition to plant, on Wordin Ave. Private plans.

N. Y., New York—S. S. Brooks, 342 West 56th St., having plans prepared by J. H. O'Brien, archt. and engr., 1123 Bway., for 2 story, 75 x 100 ft., brick, steel and concrete garage, concrete foundation, at 793 11th Ave. About $65,000.

Md., Baltimore—See "Buildings"

O., Cleveland — J. Kirby, Kirby Bldg., having plans prepared by A. W. Harris, archt., Schofield Bldg., for 5 story, 62 x 130 ft., brick, steel and concrete garage, rein.-con. flooring, brick and concrete foundation, on West 6th St. and Frankfort Ave. About $200,000.

O., Lakewood (Cleveland, P. O.)—F. E. Krum, 2285 Kyle Ave., having plans prepared for 1 story, brick and steel garage, brick foundation, on Madison and Hilliard Aves. About $40,000. Private plans.

Ill., Greenville—Duty Motor Co. plans to build 1 story, 250 x 250 ft. brick and steel factory. About $75,000. Architect not selected.

Ia., Corning—City having plans prepared by C. K. Munns, engr., Corning, for 1 story, 42 x 42 ft. power plant. About $60,000. Noted July 14.

Kan., Dexter—City plans to remodel power plant and build 19 mi. transmission line to Winfield. W. B. Rollins Eng. Co., Ry. Exch. Bldg., Kansas City, Mo., engrs.

S. D., Redfield—State Bd. of Charities and Correction, care of C. M. Day, secy., 61 West 10th St., Sioux Falls, receives bids about Aug. 5, constructing 2 story, concrete, brick and tile service building. About $85,000. Former bids rejected. C. H. Johnston, 715 Capital Bank Bldg., St. Paul, Minn., archt. Noted June 7.

Mo., Kirksville—Automatic Self Leveling Clock Co., c/o J. T. Dodd, plans to build 2 story, brick and steel factory. About $100,000. Architect not selected.

Mo., St. Louis—Continental Bank Supply Co., care of H. K. Rolf, secy., 1515 Pine St., plans to build 1 story, brick and steel factory. About $50,000. Architect not selected.

Ont., Port Burwell—Town plans to build electric lighting and power distribution plant. Address G. A. Vanorden, Port Burwell.

BIDS DESIRED

Mass. Boston—M. J. Mastrangelo, archt., 369 Hanover St., receiving bids building 1 story, 85 x 161 ft. brick factory, concrete foundation, on Ashmont St., for Royal Curtain Mfg. Co., 111 Summer St. About $40,000.

R. I., Providence—Z. Zawatsky & Son, 12 Winslow St., receiving bids building 1 story, brick, cement and steel garage, rein.-con. flooring, concrete foundation, on Westminster and Knight Sts. About $40,000. Private plans.

Conn., Hartford—I. A. Allen, Jr., Inc. archts., 904 Main St., receiving bids building 2 story, 90 x 100 ft. brick and steel addition to plant, concrete foundation, on High and Allyn Sts., for R. Kolodney Allyn St. and Union Pl. About $50,000.

Conn., Hartford—L. & H. Motors Co., 98 High St., receiving bids building 2 story, 32 x 90 ft., brick, rein.-con. and steel garage addition rein.-con. flooring, concrete foundation. Buck & Sheldon, Inc., 60 Prospect St., archts. and engrs.

Pa., Phila.—Until July 25, by W. E. S. Dyer, engr., Land Title Bldg., constructing 5 story, 73 x 170 ft. rein.-con., brick and steel mill rein.-con. flooring, concrete foundation, for A. T. Abbott Co., 23 East Allegheny Ave. About $100,000.

Ill., Winthrop Harbor—E. McVicker, mgr. Badger Concrete Mixer Co., 221 Grand Ave., Milwaukee, Wis., receiving bids building 1st unit of factory, here, 1 story, 80 x 258 ft., steel and brick, rein.-con. flooring, concrete foundation. About $60,000. Private plans.

Wis., Milwaukee — C. Thoringer, archt., 3328 State St., receiving bids building 1 story, 63 x 65 ft., brick, steel and concrete garage, rein-con. flooring, concrete foundation, on Martin St., for Jessen Auto Equipment Co., 415 Jackson St. About $40,000.

Wis., Oshkosh—Until July 25, by Auler & Jensen, archts., F.R.A Bldg., constructing 1 story, 75 x 97 ft., brick, steel and concrete garage, rein.-con. flooring, concrete foundation, for Kaerwer Auto Co., Oshkosh. Cost between $40,000 and $50,000. Noted July 7.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Calais**—Maine Central R.R., Portland, let contract building 1 story, 50 x 217 ft. round house and repair shop, brick, to Tredennick Co., 10 High St., Boston. About $100,000.

★**Mass., Brockton**—S. Pierce & Co., 69 Tremont St., Boston, let contract building 3 story, 55 x 100 ft., brick and rein.-con warehouse, to Whitcomb Constr. Co., 6 Beacon St., Boston. About $60,000.

★**Mass., Pittsfield**—R. M. O'Connell, 328 North St., let contract building 1 story, 60 x 232 ft. and 20 x 47 ft. garage and service station, brick, steel and rein.-con., rein.-con. flooring, concrete foundation, on South St., to J. R. Hampson Co., Inc., North St. About $75,000. Noted June 23.

★**Conn., Middletown** — Millbrook Dairy Co., 4 Main St., let contract building 3 story, 50 x 60 ft., rein.-con. and steel plant, rein.-con. flooring, concrete foundation, on Church and Broad Sts., to D. O'Brien & Sons Co., 118 Asylum St., Hartford. About $40,000.

★**N. Y., Jamaica**—Multiple Storage Battery Co., Van Wyck Ave., let contract building 1 story, 60 x 125 ft., brick, steel and concrete factory, rein.-con. flooring, concrete foundation, to J. Lowrey, Jr., 171 Madison Ave., New York City. About $60,000.

Industrial **Works (Continued)**

★W. Va., Wheeling—Twelfth St. Garage Co. let contract building 5 story, 82 x 125 ft. rein.-con. garage, to Kitchen & Co., Bellaire, O. About $150,000. Noted Feb. 17.

★Miss., Starkville — Mississippi Agricultural College let contract building 1 and 2 story, power house, to Estes, Williams & Ragsdale, Seimitor Bldg., Memphis Tenn. About $50,000. Noted July 7.

★O., Cleveland — Hildebrandt Provision Co., c/o H. A. Hildebrandt, pres., 3616 Clark Ave., let contract building 1 story, 66 x 100 ft., brick and steel garage, brick foundation, at 3600 Clark Ave., to C. Denzler, 4140 Robert Ave. About $40,000. Noted July 7.

★Mich., Ecorse — Hinkley Motor Corp., 3420 West Fort St., let contract constructing 1 story, 250 x 340 ft. rein.-con., brick and steel factory and office building and 1 story, 50 x 62 ft. concrete, steel and timber power house, both rein.-con. flooring, concrete foundations on Chicotte Ave., to H. G. Christman Co., Stevens Bldg. Noted July 14.

★Ill., Chicago—M. Fesel, 2136 Wilson Ave., let general contract building 1 and 2 story, 100 x 100 ft., brick garage, concrete foundation, on Montrose and Western Aves., to Home Constr. Co., 2138 North Keeler Ave. About $60,000. Noted March 10.

★Ill., Chicago—M. H. Spades, c/o D. S. Klafter, archt., 64 West Randolph St., let masonry and carpentry contract building 1 story, 70 x 125 ft., brick and terra cotta, concrete foundation, on Bway. and Berwyn Ave., to R. Sollitt & Sons Constr. Co., 30 North La Salle St. About $80,000.

★Que., Montreal—H. Labelle & Co., 149 St. Catherine St. E., let contract building 7 story, 41 x 125 ft., rein.-con. and steel warehouse and store on St. Catherine St. E., to W. Grimstead, 70 Madison Ave. About $139,000.

Buildings

PROPOSED WORK

Mass., Blandford — School — Dr. Dean Memorial Comn. had plans prepared by M. B. Harding, archt., 33 Elm St., Westfield, for 2 story, 60 x 142 ft. brick and steel, on Common.

Mass., Haverhill—Theatre, Club, etc.—Brodie & Jensky, 94 Bway., Lawrence, having plans prepared by Blackall, Clapp & Whittemore, archts., 20 Beacon St., Boston, for 3 story, brick, steel and concrete, on Main St., here. About $200,000.

Mass., Northampton—Physics—Smith College plans to build 2 story, brick, stone and steel on campus. About $150,000. W. A. Neilsen, pres. Architect not announced.

Mass., Worcester—Business—J. Rice, archt., 306 Main St., prepared plans for 8 story, 92 x 113 ft. brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Waldo, Foster and Commercial Sts. About $500,000. Owners name withheld.

Mass., Worcester—Hotel—Hotel Bancroft, Franklin St., had plans prepared by Eisenwein & Johnson, archts., 781 Ellicott Sq., Buffalo, N. Y., for 10 story, brick, steel and concrete addition, on Portland St. About $1,000,000.

R. I., Bristol—School—Guiteras Memorial School, c/o Natl. India Rubber Co., Str. House, Allns. Ave., having plans prepared by Clark & Howe, archts., 1304 Turks Head Bldg., Providence, for 3 story, brick, concrete and steel. About $300,000. S. P. Colt, chn.

R. I., Providence—Business—W. T. Grant Co., 30 West 23rd St., New York City, having plans prepared by W. R. Walker & Sons, archts., 49 Weybosset St., for 3 story, brick, steel and concrete, on Westminster and Matthewson Sts., here. About $175,000.

Conn., Bridgeport — Hotel — Stratfield Hotel, Main and Chapel Sts., having preliminary plans prepared by W. Schmidt, archt., 1188 Main St., for 8 story, 60 x 90 ft., brick, tile, steel and rein.-con. addition on Main St. About $500,000.

Conn., Bridgeport—Store and Theatre—M. H. Heanue, 1006 Norman St., having plans prepared by W. Schmidt, archt., 1188 Main St., for 2½ story, 65 x 135 ft. brick, steel and concrete on Park Ave.

Conn., Middletown—Ward—Connecticut Hospital for Insane, South Farms, having plans prepared by D. K. Perry, archt., 27 West Main St., New Britain, for 2 story, 100 x 235 ft. brick, steel and rein.-con. About $300,000.

N. Y., Brooklyn—Theater—B. F. Keith, 1564 Bway., New York City, soon receives bids building 2 story, 40 x 162 x 250 ft., brick and stone, brick foundation, on DeKalb Ave and Fleet St., here. About $750,000. T. W. Lamb, 644 8th Ave., New York City, archt. and engr. Noted Feb. 3.

N. Y., Flushing—Theatre—Long Island Theatre Corp., 116 West Bway., New York City, having sketches made by W. A. Swasey,, archt. and engr., Gotham Bank Bldg., Columbus Circle, New York City, for 88 x 136 ft. brick, steel and stone on Bway, near Main St., here. About $400,000. Noted July 7.

N. Y., Geneva—High School—Br. Educ. having preliminary plans prepared by W. Potter, archt. and engr., 22 East 17th St., New York City, for new high school. About $400,000. Noted Feb. 17.

N. Y., Hammel (Far Rockaway P. O.)—Hospital—Rockaway Beach Hospital, c/o J. E. Woodwell, archt. and engr., 501 5th Ave., New York City, soon lets contract building brick, steel and stone addition, concrete foundation, here. About $250,000.

N. Y., New York—Bank—G. Ehret, 1197 Park Ave., having plans prepared by S. E. Gage, archt. and engr., 28 East 49th St., for 1 story, 50 x 85 ft., brick, steel and stone, concrete foundation, at 543 Cathedral Parkway. About $150,000.

N. Y., New York — Educational — Amer. Academy of Arts & Letters, Inc., c/o McKim, Mead & White, archts. and engrs., 101 Park Ave., having plans prepared for 3 story, 83 x 100 ft., brick, steel and stone, concrete foundation, at 629 West 155th St. About $300,000.

N. Y., Schenectady—Schools—Bd. Educ. having plans prepared by W. T. Wooley, archt. and engr., City Hall, for 2 grade and 1 junior high school, all 3 story. About $1,000,000. Noted May 26.

N. J., Jersey City—Theatre and Office—Haring & Blumenthal, 1587 Bway., New York City, plans to build brick, steel and stone, concrete foundation, on Jackson and Orient Aves., here. About $500,000. Work will be done by separate contracts. F. De Rosa, 110 West 40th St., New York City, archt. and engr.

Pa., Newtown Square — College — C. E. Ellis College for Girls, c/o A. B. Wetherhill, 712 Commonwealth Bldg., Phila., having plans prepared by J. T. Windrim, archt., Commonwealth Bldg., Phila., for college buildings on West Chester Pike. About $5 000,000.

Pa., Phila.—Church—Holy Cross Roman Catholic Church, c/o J. A. McCullough, 134 Mt. Airy Ave., having plans prepared by E. G. Parrott, archt., Parkway Bldg., and soon receives bids building 1 story, 99 x 156 ft. stone and steel, on Mt. Airy Ave. and Boyer St. About $200,000.

Pa., Washington—Hotel—George Washington Hotel Co., c/o W. L. Stoddart, archt. and engr., 9 East 40th St., New York City, soon receives bids building 10 story, brick, steel and stone, on South Main St., here. About $1,000,000.

Md., Baltimore—Bank and Office—Natl. Bank of Baltimore, Baltimore and St. Paul Sts., having preliminary plans prepared by F. A. Fletcher, archts., 507 North Charles St., for 15 story. About $2,000 000.

Md., Baltimore—Hospital—Church Home and Infirmary, North Bway., having plans prepared by Wyatt & Nolting, archts., Keyser Bldg., for 6 story, 86 x 126 ft. brick and steel addition to include laundries, bakery, dining rooms, boiler room, machine and repair shops and steel bridges across Bethel St. at each floor level. Noted Oct. 28.

Md., Baltimore—Nurses' Home—University of Maryland, Lumbard and Green Sts., receives bids about Aug. 6, building 6 story, 35 x 75 ft. rein.-con., brick, stone and tile. Flournoy & Flournoy, 306 St. Paul St., archts.

Tenn., Nashville—University—Vanderbilt University, 21st Ave., having plans prepared by Coolidge & Carlson, archts., 89 State St., Boston, Mass., for 1, 2, 3 and 4 story additions to medicine buildings on campus. About $4,000,000. J. H. Kirkland, pres.

O., Cleveland—Hotel—Hotel Parkway Co. had plans prepared by M. Weis, archt., 618 Union Bldg., for 8 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundtion, at 2026 East 107th St. About $1,000,000. Address B. Lederman, c/o architect.

O., Cleveland—School—Br. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., for 2 story, 18 room, brick, concrete and steel addition, rein.-con. flooring, brick and concrete foundation, on East [illegible]th St. About $300,000.

O., Greenfield—[illegible]ol—Bd. Educ. having plans prepared by [illegible]B. Ittner, archt. Bd. Educ. Bldg., St. Louis, Mo., for 3 story, irregular shape, brick, stone, steel and concrete. About $300,000.

Ill., Chicago—Hall—Danceland Corp., c/o Woltersdorf & Bernard, archts., 138 North La Salle St., having plans prepared and soon receives bids building 1 story, 125 x 170 ft., rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, at 3815 West Madison St. About $300,000.

Ill., Chicago—Hotel—Sheridan Plaza Hotel Co., Wilson Ave. and Sheridan Rd., having plans prepared by W. W. Ahlschlager, archt., 65 East Huron St., for 12 story, 65 x 150 ft addition, rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation. About $800,000.

Ill., Chicago—Theatre and Office—Ascher Bros., 220 South State St., having plans prepared by C. H. Crane, archt., 127 North Dearborn St., for 16 story, 95 x 100 ft., rein.-con., brick, steel and terra cotta, rein.-con. flooring, concrete foundation, on Washington St. near State St.

Minn., Bemidji—High School—Bd. Educ. rejected bids opened July 12, building 2 story, 176 x 230 ft., rein.-con., brick, tile and stone. About $250,000. J. T. Twomy, clk. E. F. Broomhall, 710 Alworth Bldg., Duluth, archt. Noted July 7.

Tex., Dallas—Office—J. T. and J. Jones, Main and McKinney Sts., had plans prepared by A. Finn archt., 201 Foster Bldg., for 12 story, rein.-con., on Commerce and Prather Sts. About $750,000.

Que., Montreal — Exchanges — Bell Telephone Co., Notre Dame St. W., having plans prepared by A. Carmichael, archt., c/o owner, for 7 concrete, brick, steel and stone exchanges. Cost to exceed $1,000,000.

Ont., Toronto—Medical College—University of Toronto, Queens Park, having plans prepared by Darling & Pearson, archts., 2 Leader Lane, for 2 or 3 story, brick or stone, rein.-con. flooring, concrete foundation. About $500,000.

Ont., Wallaceburg—High School—School Bd. plans to build 12 room high school. About $150,000. Prices wanted on all materials and equipment. G. Boyce, chn. building com. Architect not selected.

BIDS DESIRED

N. H., Berlin—High School—Until July 25, by T. M. James, archt., 3 Park St., Boston, building 3 story, 153 x 168 ft., brick and stone, concrete flooring, for city. About $400,000. Noted May 5.

N. Y., New York—Apartment—Johnson-Deischel Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, 75 x 85 ft., brick, steel and stone, concrete foundation, on Crotona Park North. About $150,000. Work will be done by separate contracts.

N. Y., Perrysburg—Hospital—Until July 26, by Comn. of Buildings, Municipal Bldg., Buffalo, for sundry alterations, additions to present buildings and construction of various new buildings, rein.-con. and steel, rein.-con. flooring, concrete foundations, here. About $1,200,000. H. L. Beck, Municipal Bldg., Buffalo, city archt. Noted Feb. 10.

N. J., Belleville—Field House and Shelter—Until July 26, by Essex Co. Park Comn., 810 Broad St., Newark, constructing field house and children's shelter for Belleville Park, here. J. H. and W. C. Ely, 1210 Firemens Bldg., Broad and Market Sts., Newark, archts.; advertised in this issue.

N. C., Greensboro — Dormitories — Until Aug. 5, by J. I. Foust, pres. North Carolina College for Women, constructing 3 dormitories and west wing of McIver Bldg. on campus. About $350,000. Noted June 16.

O., Alliance — School — Until Aug. 8, by M. M. Mansfield, clk. Bd. Educ., completing 2 story school, on South Liberty St. About $150,000. Foundation and steel work now being erected. Total cost $300,000. F. L. Packard, New Hayden Bldg., Columbus, archt.

O., Dayton—School—Until Aug. 4, by Bd. Educ., building Jackson Elementary School, 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $200,000. Gebhart & Schaeffer, 1402 U. B. Bldg., archts.

O., Lakewood (Cleveland P. O.)—Gymnasium—Until Aug. 6, by Bd. Educ., Warren Rd., building 1 story, 60 x 120 ft., brick, concrete and steel, rein.-con. flooring, brick foundation, on Clifton Blvd. About $150,000. C. W. Hopkinson, Rose Bldg., Cleveland, archt.

O., New Concord—Church—Until July 28, by J. Cunningham, chn. building com., constructing 60 x 80 ft., brick and stone. About $150,000. F. L. Packard, New Hayden Bldg., Columbus, archt.

O., New Philadelphia—Hospital—Until July 27, by R. S. Barton, chn. Building Comn., constructing 3 story, 30 x 90 ft

Buildings (Continued)

addition, fireproof construction, for New Philadelphia Hospital. About $150,000. F. L. Packard, New Hayden Bldg., Columbus, archt.

Ind., Laporte—Hotel and Theater—H. L. Newhouse, archt., 4630 Prairie Ave., Chicago, Ill., receiving bids building 3 story, 125 x 200 ft., rein.-con., brick and terra cotta, rein.-con. flooring, concrete foundation, for Princess Theater Co.

Ill., Chicago—Hospital—Womans Hospital, 25 East Jackson Blvd., receiving bids building 1st unit of hospital, 12 story, 50 x 125 ft. rein.-con., brick and stone, rein.-con. flooring, concrete foundation, at 460 East 32nd St. About $500,000. E. Grossman, 631 North Michigan Ave., archt. Noted April 21.

Ill., Chillicothe—High School—Bd. Educ. receiving bids building 2 story, 104 x 120 ft., brick, stone and rein.-con. About $150,000. Hotchkiss & Whitmeyer, Central Natl. Bank, Peoria, archts.

Ill., Murphysboro — High School — Until July 26, by Bd. Educ., building 2 story, 100 x 124 ft. with two 100 x 124 ft. wings, brick, rein.-con. and steel. About $150 000. N. S. Spencer & Son, 37 West Van Buren St., Chicago, archts. Noted June 9.

Ill., Quincy—Theatre—W. P. Whitney, archt., 122 South Michigan Ave., Chicago, receiving bids building 3 story, 60 x 200 ft., brick, steel and terra cotta, concrete foundation, for Savoy Theatre. About $200,000.

Minn., Faribault—Hospital—Until Aug. 2 (change of date) by St. Lucas Hospital, building 4 story, 44 x 101 ft., rein.-con., brick, tile and stone. About $150,000. T. Kettelhut, supt. Schippel & Schmidt, Kruse Bldg., Mankato, archts. Noted July 14.

Kan., Abilene—Hospital—Until Aug. 10, by Dickinson Co. Memorial, c/o E. H. Horney, Abilene, building 3 story, 38 x 119 ft., brick, stone and rein.-con. About $150,000. W. H. Sayler & Co., Mutual Bldg., Kansas City, Mo., engr.

Kan., Augusta—High School—Until Aug. 27, by Bd. Educ., building 2 story, brick, stone and rein.-con. About $200,000. L. Schmidt & Co., 121 North Market St., Wichita, archts. Noted May 19.

Neb., Lincoln—School—Until Sept. 6 (change of date) by Bd. Educ., building Elliott School, 2 story, 120 x 195 ft., brick, tile and terra cotta. About $400,000. Fiske & Meginnis, Bankers Life Bldg., Lincoln, archts. Noted June 2.

Mo., Kansas City—Office—Until Aug. 5, by McKecknie & Trask, archts., Gloyd Bldg., constructing 5 story, 50 x 110 ft. brick, stone and rein.-con., at 1423-25 Baltimore St. for F. F. Platt, Stock Exch. Bldg. About $175,000.

Mo., Kirkwood—High School—Until Aug. 2, by Bd. Educ., building 2 story, brick and steel, rein.-con. flooring. About $225,000. W. B. Ittner, Bd. Educ. Bldg., St. Louis, Mo. archt. Noted May 19.

Okla., Alsuma—School—Until July 29, by Bd. Educ., building 2 story, 77 x 135 ft., rein.-con., brick, stone and steel. About $160,000. A. J. Love, Pawhuska, archt.

Okla., Norman—Church—Until July 26, by Methodist Episcopal Church and Hawk & Parr, archts., Colcord Bldg., Oklahoma City, building 2 story, rein.-con. About $150,000. Noted June 30.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Fitchburg—Bank—Fidelity Cooperative Bank, 745 Main St., let contract altering present building and constructing 1 story, 40 x 70 ft. brick and stone addition, to Wiley & Foss, Central St. Noted May 12.

★Mass., Watertown—High School—City let contract building 3 story, 90 x 220 ft., brick and stone, to M. W. Ryan, Central Sq., Cambridge. About $250,000.

★Conn., Norwich—School—Bd. Educ. let contract building 2 story, 75 x 128 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation, on West St., to G. Dose Eng. Co., 43 West 27th St., New York City. About $20,000. Noted June 30.

N. Y., Cortland—School—F. B. Gilbert, acting comr. of Bd. Educ., Educational Bldg., Capitol, Albany, opened bids July 7, building school, here, including heating, plumbing and electrical work, lump sum bid, (a) proposal 1, (b) proposal 2, (c) proposal 3, from Thompson-Starrett Co., 49 Wall St., New York City, (a) $956,900, (b) $940,000, (c) $0.65 per cu.yd. M. Kantrowitz, 20½ Market St., Albany, (a) $974,000, (b) $958,000, (c) $4.20, G. Colon Co., 81 East 125th St., New York City, (a) $1,061,000, (b) $1,047,000, (c) $7.50; construction work, from A. E. Stephens Co., 145 State St., Springfield, Mass., (a) $710,000, (b) $695,300, (c) $2, Drummond-Miller Co., 4500 Euclid Ave., Cleveland, (a) $796,000, (b) $782,000, (c) $7, G. Colon & Co., 81 East 125th St., New York City, (a) $877,000, (b) $863,000, (c) $7.50; heating work, from E. P. Bates Co., 228 West Water St., Syracuse, (a) $103,358, G. H. Drake, Inc., 218 Lexington Ave., Buffalo, (a) $109,305, W. H. Taylor & Co., 256 Hamilton St., Allentown, Pa., (a) $109,400; sanitary work, from Power Efficiency Corp., White Bldg., Buffalo, $35,775, G. H. Drake, Inc., 218 Lexington Ave., Buffalo, $45,635, E. Joy Co., 133 Market St., Syracuse, $46,755. Noted June 16.

★N. Y., New York — Apartment — Ezra Holding Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, brick, steel and stone, concrete foundation, on Grand Concourse and Fordham Rd., Bronx. About $150,000. Work will be done by day labor.

★N. Y., New York—Apartment—Grand Hall Bldg. Co., c/o I. Margon, archt. and engr., 350 East 149th St., will build 5 story, 75 x 90 ft., brick, steel and stone, concrete foundation, on Grand Ave. near 182d St., Bronx. About $150,000. Work will be done by day labor.

★N. Y., New York—Apartment—Harding Constr. Co., 370 East 149th St., will build 5 story, brick, steel and stone, concrete foundation, on 192d St. and University Ave., Bronx. Work will be done by day labor. C. Kreymborg, 2534 Marion Ave., archt. and engr.

★N. Y., New York—Apartment—E. M. J. Realty Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, brick, steel and stone, concrete foundation, on Kingsbridge Rd. and Valentine Ave., Bronx. About $250,000. Work will be done by day labor.

★N. Y., New York — Apartments — Six Fifteen West 164th St. Corp., 81 East 125th St., will build two 5 story, brick, steel and stone, concrete foundations, at 610 West 164th St. About $150,000 each. Work will be done by day labor. Gronenberg & Leuchtag, 305 5th Ave., archts. and engrs.

★N. Y., New York — Apartment — Tyrol Realty Co., c/o I. Margon, archt. and engr., 350 East 149th St., will build brick, steel and stone, brick foundation, on 152d St. and Melrose Ave., Bronx. About $175,000. Work will be done by day labor.

★N. Y., New York—College—New York University, 32 Waverly Pl., let contract building 7 story, 50 x 50 ft. steel and stone addition, concrete foundation, at 339 East 25th St., to J. Lowry, 171 Madison Ave. About $150,000. Noted July 7.

★N. Y., New York—Exchange—New York Telephone Co., 15 Dey St., let contract building top addition, brick, steel and stone, at 206 West 36th St., to Tidewater Bldg. Co., 14 East 33d St. About $250,000. Noted June 16.

★N. Y., New York—Synagogue—Centre of Israel, 2306 Creston Ave., will build brick, steel and stone, concrete foundation, on Grand Concourse near 183d St., Bronx. About $175,000. Work will be done by day labor. I. Margon, 350 East 149th St., archt. and engr.

N. Y., Oswego—High School—Bd. Educ., City Hall, opened bids July 12, building high school, (a) general construction, (b) heating and power, (c) plumbing, from Prahl Constr. Co., Erie, Pa., (a) $323,546; G. T. Kelly, 20 John St., Yonkers, (a) $363,000; De Kempe Constr. Co., Hoboken, N. J., (a) $379,000; J. R. Sheehan, 16 South Center St., Schenectady, (b) $64,023; Power Efficiency Corp., White Bldg., Buffalo, (b) $72,980, (c) $23,548; Ryan Plumbing & Heating Co., 160 Court St., Watertown, (b) $73,100, (c) $30,350; E. Joy, 133 Market St., Syracuse, (c) $29,782. Noted June 16.

★N. Y., Rochester — Apartment Hotel — W. Bausch, 1063 St. Paul St., let general contract building 9 story, 150 x 160 ft., rein.-con., steel, stone and terra cotta, rein.-con. flooring, concrete foundation, on East Ave., to E. V. Johnson Co., 20 West Jackson St., Chicago. Total cost $2,000,000.

★N. J., Burlington — High School — Bd. Educ. let general contract building 2 story, 125 x 125 ft., brick and steel, to H. B. Miller, Edgewater Park, $155,442; plumbing and heating, to E. Marlin, 200 High St., $24,083. Noted June 23.

Pa., Sunbury—Band, Store and Office—Until July 25, by Ritter & Shay, North Amer. Bldg., Phila., building 6 story, 60 x 120 ft. concrete, stone and steel rein.-con. flooring, concrete foundation, on 4th and Market Sts., for Sunbury Trust Co., 4th and Market Sts. About $200,000. Noted July 7.

★O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., let contract building two 2 story, 40 x 140 ft. wings, brick, concrete and steel, rein.-con. flooring, brick and concrete foundations, on Parkwood Dr. and Everton Ave., to W. Moore & Co., 1274 West 4th St., $185,990; heating work, to Feldman Bros., Barret Ave., $39,850. Noted July 7.

★O., Cleveland Heights (Warrensville, P. O.)—Apartment—F. C. Newcomer, Citizens Bldg., let contract building 3 story, 66 x 137 ft., brick and timber, brick foundation, on Cedar Rd. and Fairmont Blvd., to Van Blarcom Co., Plymouth Bldg. About $150,000. Noted June 23.

★O., Middletown—School—Bd. Educ. let contract building 2 story, 69 x 93 ft., brick, concrete and steel addition, rein.-con. flooring, brick and concrete fundation, to J. R. Stevens Co., Odd Fellows Bldg., Cincinnati About $150,000. Noted June 9.

★Mich., Battle Creek—School—Bd. Educ. let contract building 3 story, 95 x 400 ft. stone and brick, concrete foundation, to R. G. Phelps, Battle Creek, $266,514. Noted July 7.

★Mich., Flint — Schools — Union School Dist. let contracts building two 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundations, one on Arlington St. other on Civic Park site, to W. E. Wood Co., 1805 Ford Bldg., Detroit, $240,000 and $250,000 respectively.

★Mich., Iron Mountain — Bank — Natl. Bank let contract building concrete, brick and stone, rein.-con. flooring, concrete foundation, to G. A. Gustafson, Norway. About $150,000.

★Ill., Aledo—High School—Bd. Educ. let contract building 2 story 70 x 120 ft. rein.-con. and brick, in Dist. 60, to W. A. Ream, Galesburg. About $150,000. Noted June 16.

★Ill., Chatsworth — High School — Bd. Educ. let contract building 2 story, brick, steel and bedford stone, to V. Jolst & Son, Lekam Bldg., Peoria. About $160,000; cost plus percentage basis. Noted June 23.

Ill., Chicago — Apartment — E. and L. Constr. Co., 3058 West Chicago Ave., let masonry contract building 3 story, 125 x 125 ft. mill construction, concrete foundation, at 1840 Humboldt Blvd., to S. Fishkin, 2640 Fairfield Ave. About $200,000.

★Ill., Chicago—Apartment Hotel—Melrose Hotel Co., c/o J. A. Nyden, archt., 190 North State St., let contract building 7 story, 90 x 165 ft., rein.-con. and brick, rein.-con flooring, concrete foundation, on Melrose St and Sheriden Rd., to J. E. Mahlin, 1442 Farragut Ave. About $750,000. Noted April 28.

★Ill., Chicago — School — Sacred Heart Congregation, 4602 South Hanore St., let contract building 1 story, 60 x 120 ft., rein.-con. and brick addition, to S. Kleehamer, 5619 Western Ave., and F. Mondrowski, 3335 North Ridgeway Ave. About $150,000.

★Ill., Highland Park—Home—Presbyterian Home for the Aged, 225 South Johns Ave., let contract building 3 story, 35 x 400 ft. mill construction, concrete foundation, to W. Adams Co., 209 South La Salle St., Chicago. About $300,000.

★Ill., Oak Park—Church—First Baptist Church let contract building 2 story, brick stone and steel, on Ontario and Oak Park Aves., to Wells Bros., 53 West Jackson St. Chicago. About $150,000.

★Ill., Oak Park—High School—Bd. Educ., 285 Keystone Ave., River Forest, let contract building 4 story, 143 x 160 ft. brick, stone, concrete and steel, on Ontario St. and East Oak Park, here, to G. McClintock, Oak Park. About $175,000. Noted June 16.

★Ill., Onargo — Seminary—Grand Prairie Seminary let contract building 2 story, 48 x 78 ft. brick, stone, concrete and hollow tile, to Hagerman & Harshman, Sullivan. About $150,000. Noted July 7.

★Ill., Springfield—Hospital—Our Saviors Hospital, Jacksonville, let contract building 3 story 50 x 85 ft. brick, stone, steel and concrete, here, to V. Jolst & Sons, Peoria. About $150,000.

★Ill., Zeigler—School—Bd. Educ. let contract building 2 story, 25 x 76 ft. and 76 x 109 ft. rein.-con., brick and stone, to E. Raymond, Christopher. About $150 000.

★Wis., Appleton — Office — Lutheran Aid Assn., 1st Natl. Bank Bldg., let contract building 5 story, 67 x 145 ft. and 25 x 70 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation, to Wisconsin Eng. & Constr. Co., Wausau, $226,426. Noted June 29.

★Wis., Janesville — High School — Bd. Educ. let contract building 3 story, 180 x 210 ft. with 40 x 50 ft. boiler house, rein.-con., brick and steel, rein.-con. flooring, on South Main St., to J. P. Cullen & Sons Janesville, $513,813. Noted June 23.

Buildings **(Continued)**

★**Ia., Council Bluffs** — Hospital — Jennie Edmundson Memorial let contract building 4 story, 44 x 128 ft. with two 30 x 50 ft. wings, rein.-con., brick and stone, on Oak and Pierce Sts., to Parsons Constr. Co., 616 Keeling Bldg., Omaha, Neb., $142,268. Noted July 7.

★**Minn., Buhl**—High School—Bd. Educ. let general contract building 3 story rein.-con., brick, tile and stone addition, to Natl. Contg. Co., Virginia, $362,733. Noted July 7.

★**Minn., Hibbing** — Theater — Twin City Amusement Trust Estate, 425 Loeb Arcade, Minneapolis, let general contract building 2 story, 53 x 125 ft., rein.-con., brick and tile, to F. Gorham, Virginia. Noted May 5.

Minn., Minneapolis—Music—State Bd. Control, care of D. F. Mullen, secy., Capitol, St. Paul, opened bids July 13, building 3 story, 95 x 160 ft., rein.-con., brick, tile and stone, from R. J. Cheney & Co., 311 South 7th St., $181,780; J and W. A. Elliott Co., 906 Lumber Exch. Bldg., $183,867; H. O. McMillan, 2 South East 5th St., $186,212. Noted July 7.

★**Minn., St. Paul**—Apartment—I. Baur, c/o A. Rose, archt., 500 Builders Exch. Bldg., Minneapolis, let general contract building 3 story, 76 x 134 ft., brick and timber, on Lexington and Lincoln Aves., to L. Fleisher Co., 401 Plymouth Bldg., Minneapolis. About $120,000.

★**Kan., Arkansas City**—High School—Bd. Educ. let contract building 2 story, brick, stone, concrete and steel, to G. H. Gassman, Emporia. About $155,000. Noted June 30.

★**Kan., Ft. Leavenworth**—Memorial Hall—Boughton Memorial Assn., Leavenworth, let contract building 59 x 114 ft., here, to Baer Eng. & Constr. Co., Leavenworth. About $150,000. Noted May 26.

★**Neb., Omaha**—Store and Office—Standard Oil Co., 19th and Farnam Sts., let contract building 4 story 72 x 88 ft., rein.-con. and brick, on 18th and Howard Sts., to Vaughn Constr. Co., W. O. W. Bldg. About $200,000. Noted July 7.

★**Neb., Osceola**—Court House—Polk Co. let contract building 3 story, 64 x 98 ft. brick and stone, to J. L. Soderberg, Builders Exch., Omaha. About $150,000. Noted June 30.

★**N. D., Fargo**—Agricultural—State Bd. of Administration, Bismarck, let general contract building 3 story, 55 x 145 ft., rein.-con., brick, tile and stone, at State Agricultural College here, to T. F. Powers & Co., 419 8th St., $96,347 Noted July 14.

★**Mont., Lewistown** — High School — Bd. Educ. let general contract building 2 story, rein.-con., brick, stone and tile, to J. J. Lohrenz, South 1224 Maple St., Spokane, Wash., $147,464; plumbing and heating, to Kane & Heavlin, Lewistown, $27,885. Noted June 30.

★**Mo., Siloam Springs**—Hotel, etc.—N. O. Tate, West Plaines, will build 3 story hotel including bath house and number of cottages, brick, stone and steel. Work will be done by day labor. Private plans. Noted May 19.

★**Wash., Seattle** — Education Hall — University of Washington let contract building 4 story, 70 x 229 ft. on University campus, to Dugan & Chrisman, Hinckley Bldg., $345,300. Noted Dec. 16.

★**Ont., Toronto**—School—Bd. Educ., 155 College St., let masonry contract building 2 story, 10 room, brick and steel, rein.-con. flooring, concrete foundation, on Shaw St., to Britnell Contg. Co., Baxter Ave., $85,800; carpentry, to F. Armstrong, 89 Oak St., $32 883. Total cost $160,000.

★**Que., Westmount** — Synagogue — L. Cohen, pres., congregation let contract building 50 x 120 ft. brick and stone on Cote St. Antoine Rd., here, to P. Lyall & Sons Constr. Co. Ltd., Transportation Bldg., Montreal. About $400,000.

★**Man., Winnipeg**—Medical College—Provincial Government let contract building 2 story, 60 x 160 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation on Bannatyne and Emily Sts., to Sutherland Constr. Co., Merchants Bank Bldg., $149,064. Noted July 7.

Federal Government Work

PROPOSED WORK

D. C., Bellevue—Chimney—Spec. 4483—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

Idaho—Roads—U. S. Bureau Pub. Rds., Ogden, Utah, plans to grade 9.3 mi. forest road between Dubois and Monida, in Targhee Natl. Forest, Clark Co., 20 ft. wide, gravel or shale surfacing, cost $43,233; 10.45 mi. Post Rd. from Price to Castlegate, Carbon Co., 18 ft. wide, bithulithic or concrete, $400,000. B. F. Finch, dist. engr., c/o Bureau Pub. Rds.

BIDS DESIRED

N. Y., Buffalo—Dredging, etc.—Until Aug. 18, by U. S. Engineer, for dredging and rock excav. in Black Rock Channel, here; advertised in this issue.

N. Y., Buffalo—Riprap—Until July 27, by U. S. Engineer, furnishing and placing riprap stone on Neck of Presque Isle Peninsula, Erie Harbor, Pa.; advertised in this issue.

Del., Wilmington—Dredging—Until July 30, by U. S. Engineer, dredging Smyrna River, here; advertised in this issue.

Va., Yorktown — Water and Sewerage Systems — Spec. 4449 — Until July 27, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing at Navy Mine Depot, here. C. W. Parks, ch. of bureau; advertised in this issue.

Ga., Atlanta — Mezzanine Floors, etc.—Until Aug. 2, by Treas. Dept., Wash., D. C., constructing in Post Office, here.

La., Mason City—Vestibule—Until Aug. 10, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing in postoffice, here.

Ill., Cairo — Repairing Building — Until July 28, by Treas. Dept., Wash., D. C., repaving here. J. A. Wetmore, superv. archt.

Ia., Mason City—Mailing Vestibule—Until Aug. 10, by Treas. Dept., Wash., D. C., constructing in Post Office, here; advertised in this issue.

Ariz., Globe—Post Office—Until Aug. 15, by Treas. Dept., Wash., D. C., constructing postoffice and court house, here.

Ore., Portland—Bridge—Until July 29, by Supt. of Lighthouses, constructing structural steel foot bridge, for Cape Arago Light Sta., here.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

D. C., Bellevue—Electric Freight Elevator—Spec. 4421—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids installing, here, from Burwak Elevator Co., 216 Fulton St., New York City (1) $4,999 (90 days); Otis Elevator Co., Metropolitan Bank Bldg., Wash., D. C., (1) $5,141 (90 days); Warner Elevator Mfg. Co., 213 Spring Grove Ave., Cincinnati, O., (1) $5,685 (60 days).

★**D. C., Wash.**—Piping—Treas. Dept. let contract constructing refrigerating piping for zero room in hygienic laboratory, here, to W. G. Cornell Co., 923 12th St., $2 335 (60 days).

★**S. C., Greenville**—Fire Protection System—Treas. Dept., Wash., D. C., let contract constructing in post office and court house, here, to Pittsburgh-Des Moines Steel Co., Munsey Bldg., Wash., D. C., $35,457 (125 days). Noted June 16.

Ky., Dawson Springs—Buildings—Treas. Dept., Wash., D. C., received bids July 11 constructing 13 buildings, at Marine Hospital, here, from A. Blair, 1180 Lawrence St., Montgomery, Ala., $520,000 (6 months); Wise Granite & Constr. Co., Amer. Natl. Bank, Richmond, Va., $531,000 (6 months); C. P. Johnson & Son, 104 South Michigan Ave., Chicago, $571,571 (5 months). Noted June 30.

Ky., Dawson Springs—Mechanical Equipment—Treas. Dept., Wash., D. C., received bids July 11 installing in Public Health Sanatorium, here, from Forbes Mfg. Co., Hopkinsville, $179,430 (6 months); Power Efficiency Co., 2 White Bldg., Buffalo, N. Y., $181,986 (6 months); Federal Heating Co., 310 13th St., Wash., D. C., $194,101 (6 months). Noted June 30.

Kan., Wichita—Repairs to Postoffice—Treas. Dept., Wash., D. C., received bids repairing here, from Garber & Cissel Inc., Bethlehem, Pa., $4,000 (70 days); L. Van Dorp & Son, Topeka, $10,180 (68 days).

★**N. M., Ft. Stanton**—Hotwater Supply System—Treas. Dept., Wash., D. C., let contract constructing in sanatorium, here, to C. Irving, 1525 Larimer St., Denver, Colo., $3,593 (90 days).

Wash., Puget Sound—Water System Extension—Spec. 4447—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 13 constructing extension to fresh and salt water, system, here, (1) work complete, from R. H. Travers, 3144 Arcade Bldg., Seattle, (1) $24,781 (100 days), (2) $88,000, (3) $212, (4) $2,136 (8 days); King Plumbing & Heating Co., 214 Columbia St., Seattle, (1) $26,726 (115 days), (2) $71,000, (3) $136, (4) $1,484; R. G. Stevenson, 1327 North Lake St., Seattle, (1) $27,400 (120 days, (2) $75, (3) $175, (4) $1,150. Noted June 23.

★**H. T., Wailupe**—Water Supply Main—Spec. 4448—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing at Naval Radio Sta., here, to R. E. Woolley, 305 James Campbell Bldg., Honolulu, $13,056 (160 days).

Dams

PROPOSED WORK

Dam—Marshall, Tex.—J. E. Hayes, engr. of Farmers Reservoir & Irrigation Co., Ideal Bldg., Denver, opens bids about Aug. 15, repairing earth dam at Marshall Lake, near here. Work involves filling and excavation. About $150,000.

CONTRACT AWARDED

(★Indicate award of contract)

★**Dam—Minot, N. D.**—City and Ward Co. let contract building concrete dam across Mouse River, to G. K. Kemper, Minot. About $59,000.

Miscellaneous

PROPOSED WORK

Transmission Line—Dexter, Kans.—See "Industrial Works."

Electric Lights — Calumet, Minn. — See "Sewers"

Hydro Electric System—St. Thomas, Ont.—Yarmouth Twp. plans to build hydro power and lighting system. W. Caughell, clk.

Water Power Development — Quebec — Quebec Development Co. c/o W. Price, pres., 145 Grand Allee Ave., Quebec, having plans prepared developing water power, utilizing Lake St. John power resources, expects to develop 250,000 hp. About $3,000,000. Running Streams Comn., 54 Notre Dame St., Montreal, engrs.

BIDS DESIRED

Jib Cranes—Brooklyn, N. Y.—Until Aug. 17, by C. L. Cadle, supt. Pub. Wks., Capitol Albany, furnishing and installing two 3-ton electric semi-portal revolving jib cranes on barge canal terminal, Gowanus Bay, here, Contr. 118; advertised in this issue.

Station Finish, Etc.—New York, N. Y.—Until July 25, by Transit Comn., 49 Lafayette St., for station finish and miscellaneous construction all over city.

Paving Brick—South Fork, Pa.—Until Aug. 2, by W. Moore, clk Boro. Council, furnishing 54,000 Hillside brick and 76,000 standard paving blocks, f.o.b. South Fork, to be used for paving B Court, Grant and Maple Sts. Owen & Plummer, Otto Bldg., Johnstown, engrs.

Piers and Abutments—Dayton, O.—Until Aug. 20, by Comrs. Montgomery Co., building piers and abutments for 3 span steel highway bridge across Miami River, on Sheperd Rd., involving 5,000 cu.yd. mass concrete. About $60,000. P. S. Bookwalter, co. engr.

Foundations—Chicago, Ill.—Daughters of Zion Infants Home and Day Nursery, 1441 Wicker Park Ave., receiving bids constructing concrete foundation for 3 story, 96 x 278 ft. rein.-con., brick and stone home and auditorium, on Hirsch Blvd. and California Ave. Total cost $275,000. Dubin & Eisenberg, 14 West Washington St., archts. Noted June 23 under "Buildings."

Water Pipe and Fittings — Manitowoc, Wis.—Until July 28, by F. Alter, city engr., furnishing 1 carload standard Class "C" 6 in. water pipe and fittings.

Water Pipe and Gate Valves—Milwaukee, Wis.—Until July 25, by Central Bd. Purchasers, City Hall, furnishing 275 tons Class "C" 16 in. water pipe and twelve 16 in. gate valves.

Water Pipe, etc.—Two Rivers, Wis.—Until July 28, by Water & Light Comn., furnishing 6 800 ft. 4 and 6 in. water pipe, 16 tees, 18 crosses, 35 plugs, 15 gate valves, 9 Eddy hydrants and 15 trench valve boxes. J. Doleyesh, clk.

Swimming Pool—St. Louis, Mo.—Until July 26, by J. J. Jamieson, engr., Security Bldg., constructing 1 story, 75 x 170 ft. brick, stone and rein.-con., for Washington University, Skinker Rd. and Forsyth St. About $75,000. Noted June 23.

Water Pipe—Montreal, Que.—Until July 27, by Chairman Administrative Comn., City Hall, furnishing 525 lengths c.i. pipe. A. E. Doucet, dir. pub. wks.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Tunnel — Wellesley, Mass.** — Wellesley College let contract constructing rein.-con. pipe tunnel on campus, to H. P. Cummings Constr. Co., 14 Prospect St., Ware. About $25,000.

★**Culvert—Bristol, Conn.**—City let contract constructing 600 ft., rein.-con. culvert, in new boulevard, to C. Vacca, Terryville Rd. About $25,000.

★**Heating and Ventilating Apparatus, etc.—Morris Park (Jamaica P. O.), N. Y.**—R. W. Rodman, supt. plant operation of Bd.

Miscellaneous (Continued)

Educ., Municipal Bldg., New York City, let contract installing heating and ventilating apparatus in P. S. 57, on Curtis Ave. south of Jerome Ave., here, to Baker, Smith & Co., 570 Greenwich St., New York City, $37,989; temperature regulation apparatus, to Natl. Regulator Co., 116 Lexington Ave., New York City, $3,636. Noted July 7.

Pier and Platforms—New York, N. Y.—M. Hulbert, comr. docks, Pier "A," foot of Battery Pl., North River, opened bids July 15, building pier and platforms on outshore portion of Brooklyn Bridge Impvt., Boro. of Manhattan, Contr. 1694, from G. B. Spearin, Inc., 90 West St., $322,236; Snare & Triest Co., 8 West 40th St., $345,600; H. Steers, Inc., 17 Battery Pl., $375,423. Noted July 7.

★Ties and Timber—New York, N. Y.—Transit Comn., 49 Lafayette St., let contract furnishing ties and timber for 14th St. Route, Order No. 6, to Eppinger & Russell, 165 Bway., $18,910.

Shafts—Jersey City, N. J.—New York State Bridge & Tunnel Comn. and New Jersey Interstate Bridge & Tunnel Comn., Room 617, Hall of Records New York City, opened bids July 19, building 2 shafts for vehicular tunnel under Hudson River, here, from Shaft Constr. Co., Inc., 233 Bway., New York City, $371,000; Holbrook, Cabot & Rollins 52 Vanderbilt Ave., New York City, $380,000; Booth & Flim, Ltd., 17 Battery Pl., New York City, $445,000. Unit bids on this project may be obtained by writing "Engineering News-Record." Noted July 14.

Pavilion—Louisville, Ky.—Kentucky State Fair Assn., Republic Bldg., let contract building pavilion on State fair grounds, 4,000 Woodland Ave., to C. A. Koerner & Co., 318 East Burnett St. About $275,000.

★Electric and Power Wiring—Cleveland, O.—City let contract installing electric and power wiring in new city hospital buildings (now under construction), to Progressive Electric Co., West 14th St., $102,500. Noted July 14.

Equipment—Cleveland, O.—City received only bid furnishing and installing power house, laundry, kitchen and miscellaneous equipment, etc., in new city hospital buildings (now under construction), from W. G. Cornell Co., Leader-News Bldg., $153,638.

★Ornamental Lights—St. Paul, Minn.—City let contract building ornamental lights on Summit Ave. from Wabasha St. Mississippi River Blvd., to Commonwealth Electric Co., 182 East 6th St., $83,973. Noted June 23.

★Stadium—Lawrence, Kan.—University of Kansas let contract building stadium, to Unit Constr. Co., Title Guaranty Bldg., St. Louis, Mo. About $212,000.

Pipe and Specials—Detroit, Mich.—Water Bd. received bids furnishing 150 ton 4-24 in. and 50 ton 30-48 in. c.i. pipe and specials, from J. B. Clow & Sons Co., Franklin and Harrison Sts., Chicago, $103.65 for 4 in., $93.65 for 6-24 in. and $113.65 for 30-48 in.; Russell Wheel & Fdry. Co., Chene St., $84, $84 and $94.60; United States C. I. Pipe & Fdry. Co., 127 South Michigan Blvd., Chicago, $97.50, $97.50 and $107.50.

★Water Pipe—Detroit, Mich.—Water Bd. let contract furnishing 4,000 ton 24 in., 725 ton 30 in. and 3,288 ton 36 in. Class C water to Lynchburg Fdry. Co., Lynchburg, Va., $47.30 per ton.

★Concrete Piles, Etc.—Milwaukee, Wis.—Sewerage Comn. let contract for 18,000 lin.ft. concrete piles (cast in place) for machinery foundations for main power house on Jones Island, to MacArthur Concrete Pile & Foundation Co., 122 South Michigan Ave., Chicago, $1.64 per lin.ft.

★Trailer Wagons, etc.—St. James, Minn.—Watonwan Co. let contract furnishing six 3½ yd. Troy trailer wagons, to D. Peebles, St. James. About $1.600. Noted June 9.

Paving Materials—St. Paul, Minn.—City opened bids July 5 furnishing materials for paving Jefferson Ave. between Snelling and Fredericks Aves., 1,330 bbl. portland cement, from St. Paul Builders Material Co., 605 Ryan Annex, $2.55 delivered; Gopher Lime & Cement Co., Griggs and Fuller Sts., $2.55 delivered; 935 cu.yd. crushed rock for concrete base, from T. McDonald, 1541 Ashland Ave., $2.44 delivered; J. L. Shiely Co., 305 Dakota Bldg., $2.55 delivered; St. Paul Crushed Stone Co., Stewart and Victoria Aves., $2.80 delivered; 561 cu.yd. concrete sand, J. L. Shiely Co., 305 Dakota Bldg., $1.30 delivered; T. McDonald, 1541 Ashland Ave., $1.44 delivered; 101 tons asphalt, Minnesota Rd. Equipment Co., 708 Plymouth Bldg., Minneapolis, $23.65 f.o.b. St. Paul; Barber Asphalt Paving Co., St. Paul, oil asphalt 50-60 per cent penetration, $27.52, both in tank car lots; 384 cu.yd. fine asphalt sand, T. McDonald, 1541 Ashland Ave., $1.90 delivered; J. L. Shiely Co., 305 Dakota Bldg., $1.95 delivered; 190 cu.yd. coarse asphalt sand, T. McDonald, 1541 Ashland Ave., $1.44 delivered; J. L. Shiely Co., 305 Dakota Bldg., $1.50 delivered; 115 tons limestone dust, Minnesota Crushed Stone Co., 1500 Johnson St., N. E., Minneapolis, $5.50 per net ton delivered; 137 tons traprock, Trap Rock Co., Bway. and K St., N. E., Minneapolis, $2.45 f.o.b. cars; 275 tons binder stone, etc., J. L. Shiely Co., 305 Dakota Bldg., $1.70 delivered; materials for paving Maryland St. between Payne and Duluth Aves., 15,576 sq.yd. vitr. clay paving bricks, Streater Clay Mfg. Co., 713 Guardian Life Bldg., $1.57 f.o.b. cars; Gopher Lime & Cement Co., Griggs and Fuller Sts., $1.63 delivered; Purington Paving Co., Galesburg, Ill., $1.63 f.o.b.; 3,180 bbl. portland cement, St. Paul Builders Material Co., 605 Ryan Annex, $2.55 delivered; Gopher Lime & Cement Co., Griggs and Fuller Sts., $2.55 delivered; 1,300 cu.yd. concrete sand, United Materials Co., 626 Endicott Bldg., $1.47 delivered; J. L. Shiely Co., 305 Dakota Bldg., $1.60 delivered; Conroy Clewett Co., 722 Globe Bldg., $1.63 delivered; 2,165 cu.yd crushed rock or gravel, United Materials Co., 626 Endicott Bldg., $2.70 delivered; J. L. Shiely Co., 305 Dakota Bldg., $2.75 delivered; Stiefel Material Co., 501 Concord St., $2.75 delivered; 186,912 lb. asphalt filler, etc., Minnesota Rd. Equipment Co., 708 Plymouth Bldg., Minneapolis, $28.75 per ton f.o.b. St. Paul. Noted June 29.

Dike, etc.—Portland, Ore.—City received bids June 30, building (a) dike, involving 1,000 wood piles (except dolphin piles), 77 dolphin piles, 50,000 ft. caps, stringers bracing, etc. and 80,000 ft. logging, (b) rip rap, involving 15,000 short ton rock furnished in place, from Gilpin Constr. Co., Worcester Bldg., (a and b) $29,826; Portland Bridge & Building Co., 330 Worcester Bldg., (a) $15,183; Star Sand Co., Goldsmith and Delay Sts., (b) $14,250; Grant Smith & Co., 625 Ry. Exch. Bldg., (a and b) $40,201. Dredging to be done by Port of Portland.

OFFICIAL PROPOSALS

Bids: Aug. 3.

Miscellaneous Work

Middletown, N. Y.

Sealed proposals for Construction, Heating, Sanitary and Electric Work, Kitchen Building and Connecting Corridor, Additional Accommodations for Chronic Patients (East Group) at the Middletown State Homeopathic Hospital, Middletown, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 3 o'clock p.m., on Wednesday, August 3, 1921 (daylight saving time), when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent (5%) of the amount of the proposal. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent (50%) of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of Specifications Nos. 3742, 3743, 3744 and 3745. The right is reserved to reject any or all bids. Drawings, specifications and blank forms of proposal may be consulted at the Middletown State Homeopathic Hospital, Middletown, N. Y., at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

E. S. ELWOOD,
Secretary, State Hospital Commission.

Dated: July 1, 1921.

Bids: July 27.

Highway Construction

Trenton, N. J.

Notice is hereby given that sealed bids will be received by the State Highway Commission of New Jersey for the construction of the following:

Route No. 12, Section No. 1, beginning at Pine Brook and ending at Parsippany, Morris County, in the municipalities of Montville and Hanover, bridges as follows:

Bridge No. 84, M.P. 9.3-E: I-beam bridge, 30-foot clear span, concrete floor slab, concrete foundations and piling, width 30 feet.

Bridge No. 86, M.P. 8.9-E: I-beam bridge, four spans about 28 feet each, concrete floor slab, additional concrete foundations to old stone masonry, width 30 feet.

Bridge No. 88, M.P. 7.9-E: Steel plate girder bridge, span 70-feet, steel concrete deck floor and concrete foundations, width 30 feet.

Bridge "N" M.P. 6.2-E: I-beam bridge, span 15-feet, 6-in., concrete floor slab, concrete foundations, with 30 feet.

Culvert M.P. 5.3-E: Reinforced concrete box culvert with wing walls for roadway having 30-foot width.

Culvert M.P. 4.7-E: Reinforced concrete box culverts with wing walls for roadway having 30-foot width.

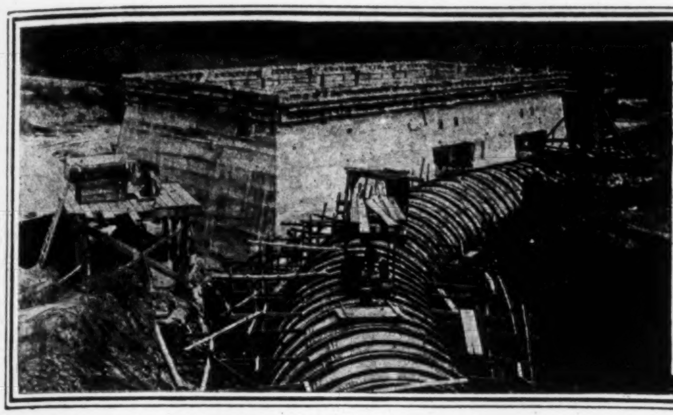
Bid in one lump sum for all of the above will be received at the office of the State Highway Commission, Broad St. Bank Bldg., Trenton, N. J., on July 27, 1921, at 11:00 a.m., Standard Time and opened and read immediately thereafter.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and office of Charles A. Mead, Bridge Engineer, 790 Broad St., Newark, N. J., and may be inspected by prospective bidders. Plans will be furnished on deposit of Ten ($10.00) Dollars for all these bridges upon application to Charles A. Mead, Bridge Engineer, 790 Broad Street, Newark. Bids must be made on the standard proposal form in the manner designated therein and as required by the 1921 specifications, same to be enclosed in sealed special addressed envelopes bearing the name and address of bidder and the numbers of bridges on the outside, and must be accompanied by a certified check drawn to the order of the State Treasurer for not less than ten (10%) per cent of the amount of the bid, provided that said certified check shall not be less than $500.00 nor more than $20,000.00, and be delivered at the above place on or before the hour named. Copies of the standard proposal form and special addressed envelope will be furnished upon application to Charles A. Mead, Bridge Engineer, 790 Broad St., Newark, N. J. Bids not enclosed in special envelope will be considered informal and will not be opened.

Each bidder must accompany his bid with a certificate from a surety company duly authorized to do business in this State, stating that such surety company will provide said bidder with a bond in such sum as is required in and in accordance with the provisions of said specifications, conditioned for the faithful performance of the provisions of the contract and specifications.

By order of the State Highway Commission.

A. LEE GROVER,
Chief Clerk.



CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 1	Willmar, Minn.	July 21
Aug. 1	Gloversville, N. Y.	July 21
Aug. 1	Coxsackie, N. Y.	July 28
Aug. 2	Mankato, Minn.	July 21
Aug. 2	Meriden, Ia.	July 28
Aug. 3	New York, N. Y.	July 28
Aug. 4	Gloucester, N. J.	July 21
Aug. 4	Pella, Ia.	July 21
Aug. 5	Montreal, Que.	July 21
Aug. 8	Hammond, Ind.	July 21
Aug. 8	Westwego, La.	July 21
Aug. 8	Bay City, Mich. Adv. July 21 and 28.	July 28
Aug. 12	Dallas, Tex. Adv. July 21 and 28.	July 21
Aug. 15	Allegan, Mich. Adv. July 28.	July 28
Sept. 1	Verona, Pa.	July 21

SEWERS

Bids Close		See Eng. News-Record
Aug. 1	Hughesville, Pa.	July 21
Aug. 1	Mamaroneck, N. Y. Adv. July 21 and 28.	July 21
Aug. 1	Willmar, Minn.	July 21
Aug. 1	Montreal, Que.	July 21
Aug. 2	Paterson, N. J.	July 14
Aug. 2	Glenview, Ill.	July 21
Aug. 3	Brooklyn, N. Y.	July 28
Aug. 5	Phila., Pa.	July 28
Aug. 8	Lebanon, Pa.	July 21
Aug. 8	Indianola, Ia. Adv. July 28.	July 28
Aug. 8	Mexico, Mo.	July 28
Aug. 9	New York, N. Y.	July 21
Aug. 9	Independence, Mo. Adv. July 28.	July 28
Aug. 9	Columbus, O.	July 28
Aug. 9	Woodbury, N. J.	July 28
Aug. 10	Maplewood, Mo.	July 21
Aug. 11	Mt. Vernon, Ill.	July 21
Aug. 17	Indianapolis, Ind. Adv. July 28.	July 28

BRIDGES

Bids Close		See Eng. News-Record
Aug. 2	Topeka, Kan.	July 28
Aug. 3	Appleton, Wis.	July 21
Aug. 3	Fox Lake, Ill.	July 28
Aug. 4	Charlotte, N. C.	July 28
Aug. 4	Carthage, Tenn.	July 28
Aug. 5	Ohio	July 28
Aug. 5	New York, N. Y.	July 28
Aug. 6	San Angelo, Tex.	July 28
Aug. 8	Missouri	July 28
Aug. 9	St. Louis, Mo.	July 21
Aug. 11	Strawn, Tex.	July 28
Aug. 12	Jeffersonville, Ga.	July 28
Aug. 15	Columbus, O.	July 21
Aug. 15	Burlington, Wis.	July 21
Aug. 16	Faribault Minn.	July 21
Aug. 16	Faribault, Minn. Adv. July 21 and 28.	July 21
Aug. 23	Trenton, N. J. Adv. July 28.	July 28
Aug. 30	Kelso, Wash.	July 28
Sept. 7	Kingman, Kan.	June 30

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
July 30	Madisonville, Ky. Adv. July 28.	July 28
Aug. 3	Racine, Wis.	July 28
Aug. 4	Roseau, Minn.	July 28
Aug. 10	Ottumwa, Ia.	July 7

STREETS AND ROADS

Bids Close		See Eng. News-Record
Aug. 1	Highland, Ill.	June 30
Aug. 1	Hastings, Minn.	July 14
Aug. 1	Red Bank, N. J.	July 21
Aug. 1	Washington	July 21
Aug. 1	Watertown, S. D.	July 21
Aug. 1	Montreal, Que.	July 21
Aug. 1	Greenville, S. C.	July 21
Aug. 1	New York, N. Y.	July 28
Aug. 1	Cadillac, Mich.	July 28
Aug. 2	South Fork, Pa.	July 21
Aug. 2	Alabama	July 7
Aug. 2	Maryland Adv. July 21 and 28.	July 21
Aug. 2	Long Branch, N. J.	July 21
Aug. 2	Trenton, N. J. Adv. July 21 and 28.	July 21
Aug. 2	Gretna, La.	July 21
Aug. 2	Dayton, O.	July 21
Aug. 2	Maryland Adv. July 28.	July 28
Aug. 2	Weston. Mo.	July 28
Aug. 2	Connecticut Adv. July 21 and 28.	July 28
Aug. 2	Cassopolis, Mich.	July 28
Aug. 2	Houghton, Mich.	July 28
Aug. 2	Massachusetts	July 28
Aug. 2	Dawson, Ga.	July 28
Aug. 2	Mt. Dora, Fla.	July 28
Aug. 3	Maniwaki, Que.	July 14
Aug. 3	Cleveland, O.	July 21
Aug. 3	Waukegan, Ill. Adv. July 28.	July 28
Aug. 3	Brooklyn, N. Y.	July 28
Aug. 3	Ontonagon, Mich.	July 28
Aug. 3	Traverse City, Mich.	July 28
Aug. 3	Cold Water, Mich.	July 28
Aug. 3	Cleveland, O.	July 28
Aug. 3	Waverly, Ia.	July 28
Aug. 4	Wichita, Kan.	July 7
Aug. 4	Bessemer, Mich.	July 28
Aug. 4	Houghton, Mich.	July 28
Aug. 4	Big Rapids, Mich.	July 28
Aug. 4	Baldwin, Mich.	July 28
Aug. 4	Lapeer, Mich.	July 28
Aug. 4	Austin, Tex.	July 28
Aug. 4	Wichita, Kan.	July 28
Aug. 5	Tennessee	July 21
Aug. 5	Pennsylvania Adv. July 14 to 28.	July 21
Aug. 5	Ohio	July 28
Aug. 5	St. Johns, Mich.	July 28
Aug. 5	Port Huron, Mich.	July 28
Aug. 8	Caro, Mich.	July 28
Aug. 8	Missouri	July 28
Aug. 8	Los Angeles, Cal.	July 28
Aug. 8	So.Pasadena (Pasadena P. O.), Cal.	July 28
Aug. 9	Syracuse, Kan.	July 7
Aug. 9	Charleston, S. C. Adv. July 21 and 28.	July 21
Aug. 9	Trenton, N. J. Adv. July 21 and 28.	July 21
Aug. 9	Duluth, Minn.	July 21
Aug. 9	Rochester, Minn.	July 28
Aug. 9	Missouri	July 28
Aug. 10	Council Grove, Kan.	July 21
Aug. 10	Sandusky, Mich.	July 28
Aug. 10	Fargo, N. D.	July 28
Aug. 10	Bellaire, O.	July 28
Aug. 10	Mankato, Minn.	July 28
Aug. 12	Iola, Kan.	July 21
Aug. 12	New York Adv. July 28.	July 28
Aug. 16	Albany, N. Y. Adv. July 28.	July 28
Aug. 17	New Jersey Adv. July 28.	July 28
Aug. 18	Richwood, W. Va.	July 28
Aug. 20	Cedarburg, Wis.	July 28

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Aug. 2	Shirley, Mass.	July 28
Aug. 2	Herrin, Ill.	July 28
Aug. 3	Cleveland, O.	July 28
Aug. 9	Dickinson, N. D.	July 28
Aug. 14	Victoria, Australia	June 2

BUILDINGS

Bids Close		See Eng. News-Record
July 30	Newton (Boston P. O.), Mass.	July 28
Aug. 1	Superior, Wis.	June 30
Aug. 1	Walkerton, Ont.	July 14
Aug. 1	Kennebunk, Me.	July 28
Aug. 1	Atlantic City, N. J.	July 28
Aug. 2	Harrisburg, Pa. Adv. July 7, 14 and 28.	July 7
Aug. 2	Kirkwood, Mo.	July 21
Aug. 2	Champaign, Ill.	July 28
Aug. 2	Salpulpa, Okla.	July 28
Aug. 2	Chillicothe, Ill.	July 28
Aug. 3	Middletown, N. Y.	July 14
Aug. 4	Dayton, O.	July 21
Aug. 4	Norfolk, Va. Adv. July 28.	July 28
Aug. 5	Mason, Mich.	July 21
Aug. 5	Greensboro, N. C.	July 21
Aug. 5	Kansas City, Mo.	July 21
Aug. 5	Cleveland Heights (Warrensville P. O.), O.	July 28
Aug. 5	Boston, Mass.	July 28
Aug. 5	Long Island City, N. Y.	July 28
Aug. 6	Lakewood (Cleveland P. O.), O.	July 21
Aug. 8	Magee, Miss.	July 14
Aug. 8	Alliance, O.	July 21
Aug. 8	West Allis, Wis.	July 28
Aug. 9	Ironwood Mich.	July 14
Aug. 10	Abilene, Kan.	July 21
Aug. 11	Asheville, O.	July 14
Aug. 12	Augusta, Ga.	July 28
Aug. 15	Cleveland, O.	July 28
Aug. 15	Kerrville, Tex.	July 28
Aug. 15	San Antonio, Tex.	July 28
Aug. 16	Rapid City, S. D.	July 28
Aug. 16	Detroit, Mich.	July 28
Aug. 18	Ithaca, N. Y. Adv. July 28.	July 28
Aug. 20	Springfield, Mo.	July 28
Aug. 22	Houston, Tex.	July 28
Aug. 22	Meadville, Pa.	July 28
Aug. 27	Augusta, Kan.	July 21
Sept. 6	Lincoln, Neb.	July 21

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Aug. 1	Removing Boulder—Providence, R. I. Adv. July 7 to 28.	July 7
Aug. 2	Mezzanine Floor — Atlanta, Ga.	July 21
Aug. 10	Mailing Vestibule—Mason City, Ia.	July 21
Aug. 15	Post Office, etc. — Globe, Ariz.	July 21
Aug. 15	Dredging Sleeves—Portland Ore.	July 28
Aug. 18	Dredging, etc. — Buffalo, N. Y. Adv. July 2 and 28.	July 21
Aug. 22	Dredging—Detroit, Mich. Adv. July 28.	July 28
Aug. 22	Dredging—Phila., Pa. Adv. July 21 and 28.	July 28
Sept. 14	Pumping Units — Denver, Colo.	July 28

MISCELLANEOUS

Bids Close		See Eng. News-Record
Aug. 1	Pier—Phila., Pa.	July 14
Aug. 2	Paving Brick—South Fork, Pa.	July 21
Aug. 4	Tunnel Piping Material — Hathorne, Mass. Adv. July 28.	July 28
Aug. 17	Jib Cranes — Brooklyn, N. Y. Adv. July 21 and 28.	July 21
Aug. 18	Test Borings—Phila., Pa. Adv. July 28.	July 28
Aug. 20	Piers and Abutments—Dayton, O.	July 21

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Pa., Phila.—City plans to lay 32,000 lin. ft. 6-36 in. c.i. water mains in various streets. Above work part of $2,000,000 project. F. Caven, City Hall, engr.

W. Va., Paden City—Town election July 23, to vote on $27,500 bonds to build waterworks plant and system.

N. C., Rocky Mount — See "Streets & Roads."

Okla., Broken Bow—City having plans prepared for pumping station, reservoir, and watermains. About $120,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Okla., Craig—City defeated $27,000 bonds to build addition to water works system. Noted July 14.

Ont., London—Utilities Comn. plans to lay 18 in. water mains. About $150,000. E. V. Buchanan, Hydro Bldg., engr.

Ont., Tilbury—Town soon receives bids building 6 and 8 in. watermains. About $50,000. Prices wanted on material. A. Heidler Tilbury, engr.

BIDS DESIRED

N. Y., Coxsackie—Until Aug. 1, by M. Vrooman, engr., 10 North Main St., Gloversville, furnishing and installing mechanical pressure filter and appurtenances, here, for village.

N. Y., New York—Until Aug. 3, by N. J. Hayes, Comr. of Water Supply, Gas and Electricity, 2351 Municipal Bldg., furnishing, delivering and laying watermains and appurtenances in Concord, Jackson, Melrose, Prospect, Trinity, Haight, Pierce and Van Nest Aves., East 144th, East 151st, East 155th, and East 158th Sts., Bronx, 1st Ave., Dyckman East 117th, West and Marginal Sts., Manhattan.

Mich., Allegan—Until Aug. 15, by B. M. Berry, city clk., building concrete and brick open well and pump house; advertised in this issue.

Mich., Bay City—Until Aug. 8, at office of H. W. Stickle, city mgr., building water pipe force mains on land and pipe lines under Saginaw River; furnishing water gate valves, c.i. water pipe and special castings; advertised in this issue.

Ia., Des Moines—Until Aug. 2, by Alvord & Burdick, engrs., 1418 South Dearborn St., Chicago, constructing 1 story, brick and concrete pumping station, for city. About $150,000.

Ia., Meriden—Until Aug. 2, by Consolidated School Distr., c/o A. Knox, building independent school water-works systems. About $25,000. W. E. Buell & Co., Davidson Bldg., Sioux City, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Pa., Phila.—City let contract furnishing and installing traveling grate stokers for Queen Lane and Shawmont pumping stations, to Combustion Eng. Corp., 43 Broad St., New York City, $41,534; furnishing and laying 60 in. steel main at Torresdale pumping station, to Beam-Craven Co., 605 Market St., $152,126; furnishing 6, 8, 10 and 12 in. stop valves, to Kennedy Valve Co., East Water St., Elmira, N. Y., $13,839; furnishing and delivering flanged specials for Queen Lane pumping station, to United States Pipe & Fdry. Co., 1420 Chestnut St., $6,000; furnishing and installing 1 fuel economizer and motor driven fans for Torresdale pumping station, 1 fuel economizer for Shawmont, also 2 for Lardners pumping station, to B. F. Sturtevant Co., 135 North 3rd St., $32,000 and $20,000 respectively; furnishing and erecting motor driven pumps at Roxborough Booster station, to Dravo-Doyle Co., Commercial Trust Bldg., $19,000; furnishing and laying 60 in. main from Queen Lane station to reservoir, to J. J. McHugh, Phila., $300,000.

O., Idlewood (Warrensville, P. O.)—See "Sewers."

O., South Euclid—Village received bids laying 24,775 ft. 6-10 in. c.i. water mains in (1) Belvoir Blvd., Piermont, Delwood, Ardmore and Adrian Aves., (2) Winston Rd., (3) Avondale Rd., (4) Elmwood Ave., from Hadded-Mall Co., Schofield Bldg., Cleveland, (1) $68,005, (2) $14,790, (3) $23,116, (4) $5,906; Salem & George Bros., Bolivar Rd., Cleveland, (2) $15,928, (3) $23,774, (4) $6,255.

O., South Euclid—Village received bids laying 10,460 ft. 6-10 in. c.i. water mains in (1) Golfway Ave., (2) Lawnway Ave., (3) Maywood Ave., (4) Rushtown Ave., (5) Oakmont Rd., 18,445 ft. 6-10 in. c.i. water mains in (6) Laclede, Renford, Westdale, Bayard and Green Rds., from A. Marra, Ullmer Bldg., Cleveland, (1) $4,196, (2) $1,527, (3) $17,036, (4) $1,742, (5) $13,486, (6) $69,092; Curro Bros., 12206 Mayfield Rd., Cleveland, (1) $5,125, (2) $2,119, (3) $21,801, (4) $2,436, (5) $17,989, (6) $86,161.

★O., Willoughby—Village let contract building 106 x 175 ft. concrete equalizing basin, 2,000,000 gal. capacity and 6,800 ft. 12 in. c.i. pipe, to Gangl Constr. Co., 737 Natl. Bldg., Akron, $96,747. Noted July 14.

★Mich., Detroit—Fire Comn. let contract furnishing and installing 3 motor driven centrifugal pumping units in new high pressure pumping station on Randolph St., to Midwest Eng. Co., 19th and Martindale Aves., Indianapolis, Ind. About $30,500.

★Minn., Forest Lake—Village let contract building waterworks system, to O'Neill & Preston, 608 Exch. Bank Bldg., St. Paul. About $75,000. Noted July 7.

★S. D., Redfield—City let contract furnishing 3 centrifugal pumps each 1,000 gal. capacity, 1 centrifugal pump 500 gal capacity, 1 steam turbine and 1 motor driven fire pump, to J. W. Hildred Co., 1019 Commerce Bldg., St. Paul, Minn., $7,599. Noted June 9.

★Wash., Sumner—City let contract replacing watermains and building new distribution system, involving 9,250 ft. 12 in. c.i. pipe, 2 concrete intake reservoirs, etc., to W. H. Mitchell, Hoge Bldg., Seattle, $38,824.

★Ont., Toronto—York Twp. let contract laying 35,000 ft. 6 in. c.i. water pipe, to A. Cavotti, 257 Euclid Ave. About $25,000.

Sewers

PROPOSED WORK

N. Y., Depew—Village voted $25,000 bonds to build sewers. J. C. English, Depew, clk.

O., Ashtabula—City plans to build sewage disposal plant. About $500,000. C. R. Stanhope, city engr.

Ill., Bellwood—City having plans prepared building 8-42 in. vitr. tile sanitary sewers in various streets. About $167,000. E. A. Rossiter, 127 North Dearborn Ave., Chicago, engr.

Ill., South Pekin—City c/o J. Hill, mayor, plans to build storm and drain sewers in various streets. About $40,000. Engineer not selected.

Minn., Alexandria—City having preliminary surveys made for sewerage system. About $95,000. H. S. Campbell, clk. C. L. Pillsbury Co., 1200 2d Ave., S., Minneapolis, engrs.

N. C., Rocky Mount — See "Streets & Roads."

Ont., London — City plans to extend sewerage system. About $300,000. H. A. Brazier, city engr.

Ont., Toronto—City plans to build 18,000 ft. sewers in Don Rd., Commissioners, Villiers, Keating, Bouchester, Saulter and Cherry Sts., Hastel, Elmer, Logan, Carlaw and Phyl Aves., mostly vitr. tile, cost $390,600; 16,000 ft. sewers in Lake Shore Rd. from Jane St. to Parkside Drive, Parkside Drive from Lakeshore Rd. to Boulevard Drive, Boulevard Drive from Parkside Drive to point 1,100 ft. west of Dowling Ave., $301,000. R. C. Harris, city engr.

BIDS DESIRED

N. Y., Brooklyn—Until Aug. 3, by E. Riegelmann, boro pres., Boro Hall, building sewer in West 13th St. between Ave. Q and Ave. R., Kenmore Pl. and sewer basins in Ragut Rd. About $100,000.

N. J., Woodbury—Until Aug. 9, by city, building new sewage disposal plant and reconstructing old one. About $60,000. W. H. Boardman, 426 Walnut St., Phila., engr.

Pa., Phila.—Until Aug. 5, by city, building Schedule A, branch sewers in different streets; Schedule B, main sewers in Charles St. from point southwest of Longshore to Longshore St., Longshore St. from Charles to Gilmore Sts., Gilmore St. from Longshore to Tyson Sts., Napfie St. from Cottage St. to Frankfort Ave., Pratt St. from Oakland to Loretta Sts., Vernango St. from Allen to Edgemont Sts., Wissahickon low-level intercepting sewer through Fairmont Park from Green Lane to Gorgas Lane, all 6 ft. 6 in. rein.-con.; Schedule C, Mingo Creek pumping station, storage tanks for fuel oil. F. H. Caven, City Hall, city dir.

O., Columbus—Until Aug. 9, by W. H. Duffy, dir. Pub. Serv., building 8,580 ft. 24-42 in trunk sewer from Lexington Ave. and 17th St. to connect with Linden sewer, cost $82,943; 18 x 33 ft. brick and concrete sewerage pumping plant on Nelson Rd., including two 6 in. and one 3 in. electrically driven pumps. R. H. Simpson, City Hall, engr.

Ind., Indianapolis—Until Aug. 17, by Bd. Sanitary Comrs., for (1) constructing clarification and pumping station building; (2) rein.-con. connecting conduits; (3) concrete thickener tanks; (4) c.i. pipe and specials; (5) conduit gates. C. H. Hurd, 1405 Merchants Bank Bldg., consult. engr.; advertised in this issue.

Ia., Indianola — Until Aug. 8, by City Council, at office of E. M. Wilson, city clk., building 2 trickling filters, with alternative proposition for 1 sand filter; also 2 sludge beds, changes to present septic tanks, etc. L. Higgins, 618 Flynn Bldg., Des Moines, engr.; advertised in this issue.

Ia., St. Ansgar—Until Aug. 9, by city, constructing 30,000 ft. 8 in., 3,500 ft. 10 in., and 1,300 ft. 12 in. sanitary sewers, cost $75,000; sewage disposal plant, $15,000. T. A. Tollefesen, clk. W. E. Buell & Co., Davidson Bldg., Sioux City, engrs.

Mo., Independence—Until Aug. 9, by E. A. Davis, city clk., building 3 sewage treatment plants and ejector stations. Burns & McConnell, Interstate Bldg., Kansas City, engrs; advertised in this issue. Noted June 16.

Mo., Mexico—Until Aug. 8, by city, building outfall sewers and sewage disposal plant. About $70,000. Former bids rejected. Black & Veatch, Mutual Bldg., Kansas City, engr. Noted July 14.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, opened bids July 20, building sewer and appurtenances in (1) Weil Pl. from Flushing Ave. to North Washington Pl., 1st Ward, (2) Liberty Ave. from Rockaway Blvd. to 99th St., etc., from F. Spinella, (1) $3,857; Green Contg. Co., 734 Vernon Ave., Astoria, (1) $3,969, (2a) $11,978, (2b) $111,179; J. H. Johnson, (1) $4,081; J. H. Mullen Contg. Co., Fulton St., Flushing, (2a) $103,682, (2b) $102,653; J. Ferry & Son, Woodhaven, (2a) $117,612; A. Paino, (2a) $122,861, (2b) $119,009.

★N. D., Mandan—City let contract building 60 in. monolithic concrete trunk sewers and laterals, to W. E. Kennedy, Fargo, $43,114.

★O., Akron—City let contract constructing 8-36 in. sewer between Aqueduct St. and Little Cuyahoga River, to J. B. Dorris, Akron, $40,170; 1,940 ft. of 7 ft. 3 in. to 7 ft. 6 in. trunk sewer to extend from Spicer to Crouse Sts., to T. E. McShaffrey Co., Rhoddes Ave., $77,447.

★O., Idlewood (Warrensville P. O.)—Village let contract building sewers and water mains in Barrington and Cranston Rds., involving 1,300 ft. 8 in. c.i. water

Sewers (Continued)

main and 4,680 ft. vitr. sewers, to Hadded-Mall Co., Schofield Bldg., Cleveland, $26,344. $26,344.

★**Mich., Detroit**—City let contract building sewer in Seven Mile Rd. from Keystone to Fleming Aves., Sects. 3 and 4, involving 7,570 ft. of 11½ ft. pipe, to B. Hayes, 6880 Clayton Ave., $500,845.

★**Ia., Arnold Park**—City let contract building sewerage system, to O. W. Gjelleford, Forest City, $57,133; disposal plant, to Nelson-King Co., Spencer, $18,000. Noted June 2.

★**Ia., Manchester**—City let contract building 8-12 in. sanitary sewers in South Tama and Vine Sts., to W. Jewell, Manchester, $25,394.

★**Kan., Atchinson**—City let contract laying 8-12 in. sewer pipe in various streets, to O. H. Schmidt, 3402 Renick St., St. Joseph, Mo. About $25,000. Noted July 21.

★**Kan., Stockton**—City let contract building sanitary sewers in various streets, to Ammerman Constr. Co., Wichita, $36,100. Noted Nov. 18.

★**Utah, Ogden**—City let contract furnishing labor and materials for building sewers in Dist. 144, involving 38,116 ft. 8-12 in. vitr. pipe and 36,940 cu.yd. earth trenching, to Taylor Childs Co., Ogden, $113,229. Noted Aug. 12.

Wash., Seattle—Bd. Pub. Wks. received bids July 15, building sewers in Findlay St., involving 6,076 lin.ft 8 in. and 524 lin.ft. 18 in. sewer pipe, including 366 lin.ft. 6 in. wyes, (a) clay, (b) concrete, from Interstate Constr. Co., Seattle, (a) $25,730, (b) $25,278; King Plumbing & Heating Co., 214 Columbia St., (a) $32,864, (b) $32,148.

Bridges

PROPOSED WORK

Me., Lewiston—City plans to build 55 ft. rein.-con. bridge, 62 ft. wide, on Main St. About $50,000. J. J. Jones, city engr.

Mass., Athol—Town and Worcester Co. (Worcester) having plans prepared for rein.-con. bridge, 107 ft. long, 55 ft. wide, over Millers River on South Main St. About $80,000. J. R. Worcester & Co., 79 Milk St., Boston, engr. Noted April 28.

W. Va., Charleston—City having preliminary plans prepared for bridge across Elk River, at or near Wyoming St. Election Aug 17 to vote on $250,000 bond for project. E. Bruce, city engr.

North Carolina—State Highway Comn., Raleigh, having plans prepared for 200 ft. steel bridge, over Rocky River, between Stanly and Anson Counties. About $40,000. C. M. Upham, state highway engr.

O., Youngstown—City plans to build steel and concrete bridge. About $1,000,000. C. A. P. Turner, 627 1st Ave., N., Minneapolis, Minn., engr.

Michigan—State Highway Dept., Lansing, plans to build Bridge 600401, 150 ft. long, 2 spans, concrete girder, Montgomery Co.; Bridge 150502 on Lansing-St. Johns Rd., 90 ft. concrete girder with high abutments, Clinton Co.; Bridge 730101, 90 ft. span, concrete girder, Saginaw Co. F. F. Rodgers, Lansing, state highway comr.

Ia., Onawa—Monona Co. plans to build one 20 x 80 ft. and one 20 x 50 ft. pony trusses, 1 concrete cattle pass, 41 box culverts on Primary Bridge Project B 48, between Turin and Soldier, involving 1,727.9 cu.yd. rein.-con., 121,345 lb. reinforcing and 94,330 lb. structural steel; one 20 x 60 ft. pony truss, one 20 x 42 ft. arch span, 36 box culverts and extensions, on Primary Bridge Project B 48, between Mapleton and Ute, involving 1,109.3 cu.yd. rein.-con., 68,555 lb. reinforcing and 86,350 lb. structural steel. Iowa Highway Comn., Ames, engrs.

Minn., St. Paul—City having plans prepared building 600 ft. steel bridge, 56 ft. roadway, over Mississippi River, to replace present Roberts St. bridge. About $600,000. Toltz, King & Day, 1410 Pioneer Bldg., engrs. Noted Jan. 6.

Mo., St. Louis—High School—Rosati Kain Catholic Church, care of A. Caain, pastor, 4368 Lindell St., having plans prepared by H. P. Hess, archt., 4811 Cote Brillianti St., for 3 story, 80 x 178 ft., brick, rein.-con. and stone, on Newstead and Lindell Sts. About $300,000.

BIDS DESIRED

Conn., Hamden—Towns of Hamden and North Haven receiving bids building 60 ft. rein.-con. highway bridge over Mill River on Dixwell Ave., between here and North Haven. About $26,000. A. J. Deane, Hamden, clk.

N. J., Trenton—Until Aug. 23, by Bd. Freeholders Mercer Co. building 375 ft. through plate girder viaduct, etc. over Delaware and Raritan Canal and Pennsylvania R.R., on Southerd St. Waddell & Son, 35 Nassau St., New York City, engrs.; advertised in this issue. Noted July 21.

Ga., Dawson—Until Aug. 2, by Bd. Comrs. Rds. and Revenues Terrell Co., constructing 250 ft. concrete and steel bridge, on Dawson-Cuthbert Rd., Federal Aid Project 208, involving 26,613 lb. steel, 268 cu.yd. excav., etc. State Highway Dept. will furnish cement.

Ga., Jeffersonville—Until Aug. 12, by Comrs. Twiggs Co. constructing 1 rein.-con. bridge and 1 rein.-con. culvert, near Dry Branch, on Macon-Jeffersonville Rd., involving 204.87 cu.yd. rein.-con., 15,756 lb. steel, etc. E. N. Parker, Dublin, engr.

Ala., Scottsboro—Until Aug. 9, by J. H. Moody, judge, Jackson Co., building 133 ft. bridge, 12 ft. roadway, over Hill Mill Creek, involving 240 cu.yd. rubble masonry, etc. L. G. Smith, Montgomery, engr.

Tenn., Carthage—Until Aug. 4, by Smith Co. Highway Comn., constructing 10 bridges, 6 126 ft. spans. Bids asked on both concrete and steel. M. E. Bird, Carthage, engr.

N. C., Charlotte—Until Aug. 4, by T. C. Griffith, Charlotte, building Buster Boyd bridge over Catawba River, to have one span over river proper, 301 ft. long, seven 126 ft. spans and two 90 ft. spans, probably steel construction, concrete sub-structure, for Meckenburg Co., and York Co., S. C. About $100,000. L. Ross, Charlotte, engr.

Ohio—Until Aug. 5, by State Highway Dept., Columbus, building bridges in following counties:

Allen Co., Sect. "K" Lima-Sandusky Rd., cost $2,027. Cuyahoga Co., Sect. "J" Twinsburg-Elyria Rd., $31,250.

Marion Co., Sect. "G" Marion-Galion Rd., $2,034. Lake Co., Sect. "J" Cleveland-Buffalo Rd., $115,218.

Kan., Topeka—Until Aug. 2, by city, c/o E. M. Covell, clk., building one 36 ft. skew girder span, 20 ft. wide, over Ward Creek on Roosevelt St. About $25,000. W. E. Baldry, Topeka, engr.

Ill., Fox Lake—Until Aug. 3, at office of C. E. Russell, Lake Co. supt. Highways, (Waukegan), building 63 ft. span steel lattice truss bridge, concrete flooring and sidewalk, over Nippersink Channel, here, for County and Village. Noted July 7.

Missouri—Until Aug. 8, by State Highway Dept., Trenton, building three 100 ft. steel truss span bridges over slough of Grand River, at Sta. 463 plus 00 on state road from Jamesport to Trenton, involving 188.5 cu.yd. Class A., 90.2 cu.yd. Class B and 70 cu.yd. Class C concrete, 29,550 lb. reinforcing and 191,300 lb. fabricated structural steel, etc., $39,396; two 120 ft. steel truss spans with two 30 ft. I-Beam approach spans, etc., over east fork Grand River, at Sta. 447 plus 20, on state road from Jamesport to Trenton, 193 cu.yd. Class A, 153.7 cu.yd. Class B and 195.5 cu.yd. Class C concrete, 188,175 lb. fabricated structural and 32,380 lb. reinforcing steel, etc., $48,644. Above bridges on Sect A, Federal Aid Project 116, Grundy Co. A. Graham, Jefferson City, state highway engr.

Tex., San Angelo—Until Aug. 6, by C. T. Paul judge Tom Green Co., building 585.42 ft. steel span bridge 20 ft. roadway, on concrete piers and abutments over Lone Wolf Creek, involving 817.4 cu.yd. Class A and 96.2 cu.yd. Class B concrete, 154,744 lb. reinforcing and 151,000 lb. structural steel. Work also includes removal of one old steel span and 30.72 cu.yd. masonry. About $60,000 including 10 per cent for engineering and contingînces. G. Gilchrest, San Angelo, engr. Noted May 12.

Tex., Strawn—Until Aug. 11, by E. L. Pitts, judge Palo Pinto Co., (Palo Pinto), building 255 ft., steel and concrete bridge over Palo Pinto Creek near here, involving 329.9 cu.yd. Class A, 203.1 cu.yd. Class B and C concrete, 44,285 lb. reinforcing, 94,800 lb. structural steel, 225 cu.yd. dry and 168 cu.yd. west structural excav. Cost $26,551. W. V. Smith, co. engr. Noted April 28.

Wash., Kelso—Until Aug. 30, by State Highway Comn., Olympia, building 722 ft. steel structure on Ocean Beach Highway, near here, to have 102 ft. lift pan, 24 ft. roadway and 5 ft. walks, for Cowlitz Co., Kelso and State Highway Comn. Cost between $225,000 and $250,000. J. Allen, state highway engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. H., Manchester**—City let contract rebuilding Amoskeag Bridge over Merrimac River and Boston & Maine R.R., steel and concrete, to L. H. Shattuck Co., 208 Granite St. About $150,000. Noted June 30.

Conn., Groton (New London P. O.)—State Highway Dept., 240 Farmington Ave., Hartford, received bids July 19, fabricating and erecting steel superstructure of bridge, over Mystic River, between here and Stonington, from Amer. Bridge Co., 30 Church St., New York City, $104,440; Bethlehem Steel Bridge Co., Bethlehem, Pa., $104,700; McClintic-Marshall Co., Oliver Bldg., Pittsburgh, Pa., $116,550. Noted July 8.

N. Y., New York—Until Aug. 5, by H. H. Curran, pres., Manhattan Boro., constructing steel viaduct with appurtenances in West 134th St., 12th Ave., to 200 ft. easterly.

Fla., Cortez—Manatee Co. (Bradentown) received lowest bid building bridge between here and Santa Anna, 2,212 ft. long with 610 ft. approach; 24 ft. wide, wooden construction, 60 ft. steel draw, from J. R. Chambliss, Oak and Morgan Sts., Tampa. About $36,000.

★**Ky., Pikeville**—E. E. Trivette, judge Pike Co., let contract building three span open spandrel rein.-con. arch., total length 465 ft., across Russel Fork of Big Sandy River, at Marrowbone Station, to Concrete Steel Bridge Co., Clarksburg, W. Va., $39,106 using local sand and gravel, $41,606 using crushed rock or Ohio River gravel and local sand. If foundation should be excavated lower than shown on plans, for extra work thus added the following unit prices govern: earth excav., $7 per cu.yd., rock excav., $15, concrete $26. Noted June 9.

Ohio—State Highway Comn., Columbus, opened bids July 22, building bridges in following counties:

Muskingum Co., Sect. "R" National Rd., constructing rein.-concrete bridge over Salt Creek, D. L. Paul, Zanesville, $12,469; Taylor & Lynn, Zanesville, $12,983; F. A. Moorhead, West Jefferson, $13,684.

Fulton Co., Sect. "J" Toledo-Angola Rd., constructing steel bridge, J. E. Girkins, Whitehouse, $21,987; LaBriteaux & Hayes, Toledo, $22,829; Mangerick Bros., Napoleon, $23,770.

Montgomery Co., Sect. "F-1" Dayton-Troy Rd., repairing steel bridge, H. A. MacDonald, Norwalk, $7,342; O. D. Carrell, Dayton, $7,385; A. S. Fox, Dayton, $7,897.

Hocking Co., Sect. "A" Logan-Athens Rd., constructing concrete bridge over Old Town Creek, E. N. Turner, Logan, $9,873; J. F. Pulinbo, Columbus, $9,916; Barthlow & Son, Logan, $9,946.

Logan Co., Sect. "B" Bellefontaine-Marysville Rd., constructing concrete bridge beam, Bennett & Drum, Celina, $6,224; F. A. Morehead, West Jefferson, $6,399; Pickering-Goetz, Bellefontaine, $6,618.

Putnam Co., Sect. "Ottawa" Lima-Ottawa Rd., repairing 25 ft. bridge, H. A. MacDonald, Norwalk, $5,892; K. A. Smith, Defiance, $6,457; C. J. Fox, Brookville, $6,442. Noted July 7.

★**Wis., Wisconsin Rapids**—State Highway Comn., Madison, let contract building Wisconsin Rapids bridge here, 543 ft. long, to C. R. Meyer, 50 State St., Oshkosh. About $132,800. Noted July 14.

★**Ia., Anamosa**—Jones Co. let contract building 49 box culverts, 1 circular culvert, 2 pony trusses, to Hawlett Constr. Co., Moline, Ill., $33,500.

★**Tex., Gilmer**—J. L. Melvin, judge Upshur Co., let contract building rein.-con. bridges and culverts in Div. 2, Highway 11, to General Constr Co., 582 Arcade Bldg., St. Louis, Mo., $26,800 including 10 per cent for engineering and contingencies. Noted June 23.

★**Mont., Thompson Falls**—State Highway Comn., Capitol, Helena, and Sanders Co., let contract building three 200 ft. truss spans over Clarks Fork of Columbia River,

Bridges (Continued)

here, to R. E. Mieth, Yeon Bldg., Portland, Ore., $97,682; approaches, to Zumwalt & Ducker, Roundup, $7,001. Noted June 30.

★Col., Denver—Monte Vista-State Highway Dept. let contract building 150 ft. concrete bridge over Rio Grande River, Federal Aid Project 178, Rio Grande Co., to Monarch Eng. Co., West Colfax and Larimer Sts., Denver, $30,160. Noted June 16.

★Cal., Santa Ana—Bd. Supervs. Orange Co. let contract constructing bridge, having fifteen 50 ft. timber spans on concrete pile bents and 308 ft. pile trestle approaches, over Santa Ana River, here, to F. Hudson, 819 Higgins Bldg., Los Angeles, $44,010.

★Que., Montreal—Administrative Comn. let contract building rein.-con. bridges over aqueduct at Verdun, Monk Blvd. and Woodlands, also approaches to Church Ave. Bridge, to Kennedy Constr. Co., Shaughnessy Bldg., McGill St., $78,823.

Dams

PROPOSED WORK

Utah, Price — See "Excavation and dredging."

Excavation and Dredging

PROPOSED WORK

Miss., Greenwood—Ditch—Abiaca Creek D.D. of LeFlore Co. (Greenwood), Holmes Co. (Lexington), and Carroll Co. (Carrollton), had plans prepared for 4 mi. ditch to drain flood waters of Abiaca Creek into Yazoo River, involving 500,000 cu.yd. dragline excav. Morgan Eng. Co., Goodwyn Institute, Memphis, Tenn., engrs.

Fla., Jacksonville—Dredging—City rejected bids dredging 70,000 cu.yd. in St. Johns River. About $45,000. F. M. Edwards, 1004 Main St., city engr.

Ill., Mounds — Drainage — City having plans prepared for drainage system. About $150,000. G. Chance, mayor. Private plans.

Ia., Council Bluffs—Excavation—Until Sept. 15, by Auditor Pottawattamie Co., excavating old ditch channel, Allen Creek D.D., Pottawattamie and Harrison Counties, involving 315,000 cu.yd. excav. About $30,000.

Ia., Sioux City—Excavation—Woodbury Co. plans to build open ditches in Garretson D.D. involving 1,000,000 cu.yd. dry earth excav. About $225,000. C. Moriarity, 518 U.B. Bldg., engr.

Ia., Sioux City—Excavation—Woodbury plans to build open ditches in Grant D.D., involving 60,000 cu.yd. dry earth excav. C. Moriarity, 518 U.B. Bldg., engr.

Minn., New Ulm—Ditch—Brown, Sibley and Nicollet Counties having plans prepared for three drainage projects, involving 25 mi. open ditches and 223 mi. 6-42 in. tile. About $1,500,000. F. D. Minium, New Ulm, engr.

Mont., Red Lodge—Irrigation—East Side Irrigation Dist. of Clark Fork Valley, having plans prepared for system to irrigate about 7,000 acres. About $375,000. J. B. Meyers, Belfrey, secy. S. C. Kimball, Red Lodge, engr.

Utah, Price—Irrigation—Price River Irrigation Dist. plans to reconstruct Mammoth Dam, also excavate new ditches and clean old canals. About $250,000. W. W. Jones, Price, engr. McGonagle & Ulrich, Salt Lake City, consulting engrs.

BIDS DESIRED

Ky., Madisonville—Ditch—Until July 30, by Hopkins Co. Drainage Bd., building Earl Creek Ditch, 6 mi. long. S. Ford, secy.

Wis., Racine—Ditch—Until Aug. 3, by B. Evans, secy., Hood Creek D.D., 1418 Park Ave., building 24,270 lin.ft. open ditch and 77,000 lin.ft. 8-24 in. tile work in Twps. of Mt. Pleasant, Yorkville and Caledonia. About $100,000. P. J. Hurtgen, Kenosha, engr.

Minn., Roseau—Ditch—Until Aug. 4, by Roseau Co., building 17 mi. Co. Ditch 26, involving 24,750 cu.yd. excav. in main ditch and 115,185 cu.yd. excav. in 4 laterals. About $25,000. J. Deneen, Roseau, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

O., Canton—Dredging, etc.—City let contract dredging, widening and straightening East Creek from Tuscarawas St., E. to 9th St., N. E., also building concrete retaining wall from Tuscarawas St. E. to 9th St., N. E., to F. R. Jones Constr. Co., 139 North Clark St., Chicago, $204,526. Noted June 2.

★Wis., Milwaukee—Dredging—City let contract for (1) 431,000 cu.yd. dredging along west side of Jones Island, (2) removal of wrecks, to Cleveland Eng. & Constr. Co., 778 The Arcade, Cleveland, (1) $24.75 per cu.yd., (2) $10,000. Noted July 21.

★Ia., Mason City—Drainage—Cerro Gordo Co. let following contracts building Sects. 3A, 3C, 3D, and laterals 7, 8, 10, 11, 12, 15 and 16, Joint D.D.1, in Cerro Gordo, Hancock and Franklin Counties, labor, to Severson & Martin, Albert Lea, Minn., $61,588; 6-12 in. tile, to Mason City Brick & Tile Co., Mason City, $9,227; 14-40 in. tile, to What Cheer Products Co., What Cheer, $82,860. Noted June 2.

Streets and Roads

PROPOSED WORK

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, rejected bids opened July 13, regulating and paving Metropolitan Ave.; cost $60,000; regulating and grading Malta Ave., $1,500. Work will be readvertised. Noted July 21.

N. Y., East Aurora—City plans to repair and improve various roads. About $75,000. R. Person, East Aurora, superv.

Pennsylvania — State Highway Dept., Harrisburg, rejected bids opened June 22, building Route 585, Franklin Co. Noted June 30.

W. Va., Charleston — City having preliminary plans prepared improving Duffy, Wyoming, Main, Randolph, Roane, State and Florida Sts., Columbia, Tennessee, Pennsylvania, Maryland, Ohio, and Glenwood Aves., Shelton Alley, Columbia Blvd., Chester and Poplar Rds., and Springdale Drive. Election Aug. 17 to vote on $500,000 bonds for project. E. Bruce, city engr.

W. Va., Huntington—Cabell Co. plans to pave 2 mi. Norway Rd. from Huntington city limits to Russell Creek. About $50,000.

North Carolina—State Highway Comn., Raleigh, plans to clear, grub, grade, drain and surface 10 mi. road from Warrenton to point on Hacon-Littleton Rd., State Project 626, Warren Co., about $85,000; 9.9 mi. road from Goldsboro to Lenoir Co. line on Central Highway, State Project 616, Wayne Co., $80,000. C. M. Upham, state highway engr.

North Carolina—State Highway Comn., Raleigh, plans to grade, drain and hard surface 9 mi. road from Guilford Co. line to Waughtown, State Project 531, Forsyth Co., about $270,000, 11 mi. road from end Federal Aid Project 47 to Alamance Co. line, State Project 532, Guilford Co., $325,000; clear, grub, grade, drain and surface 6.1 mi. road from Lincolnton to Iron Station, State Project 537, Lincoln Co., 1.8 mi. of some type of hard surface and 4.3 mi. sand clay or topsoil, $80,000. C. M. Upham, state highway engr.

North Carolina — State Highway Comn. at dist. office Greensboro, plans to grade, drain and sand clay surface 10 mi. road from children's home at High Point, via Deep River to Friendship, Guilford Co. About $30,000. C. O. Lowe, Greensboro, engr.

N. C., Ayden—Town plans to pave various streets, rein.-con. or asphaltic material. About $225,000.

N. C., Hickory—City plans to pave 1 mi. 10th Ave. from 12th St. to city limits. About $35,000. Taplan & Perkins, High Point, engrs.

N. C., Rocky Mount—City plans to pave various streets and improve waterworks and sewerage systems. About $150,000. L. V. Bassett, city atty.

N. C., Washington—Town plans to pave various streets. About $200,000. P. C. Painter, Washington, engr.

Fla., Lake City—Columbia Co. sold $100,000 bonds to pave 11 mi. road, probably brick. Engineer not announced.

Fla., Orlando—Orange Co. voted $2,350,000 bonds to pave 150 mi. various roads, brick or asphalt block. E. E. White, engr. Noted Mar. 3.

Ala., Carrollton—Pickens Co. voted $200,000 bonds making possible $500,000 for road and bridge work.

Ala., Mobile—Mobile Co. plans to resurface with oyster shell and repair drainage structures on 5 mi. Coden-Bayou la Batre Rd.; grade, drain and surface 5 mi. Belchamps-Coden Rd., shot ore or oyster shell; 5 mi. Lott Rd., sand clay or clay gravel; 4 mi. road from Irvington to Boulevard and Bayou la Batre Rd., shot ore; 6 mi. Mt. Vernon-Citronelle Rd., 14 mi. Celeste Rd., 10 mi. Union Church-Churchula Rd., 5 mi. Shelton Rd., 14 mi. Calvert-Citronnele Rd., all sand clay and shot ore; 1½ mi. Government St. Rd. and 3 mi. Tanner Rd., both concrete; 3 mi. Frohsin, 3 mi. Venetia, 4 mi. Fulton, 4 mi. Conception St., 1 mi. Telegraph and 4 mi. Theodore-Delchamps Rds., 2½ mi. road from Tanner Rd. at Wheelerville to Orchard, 10 mi. Howells-Ferry Rd. through Orchard to Schellinger Rd., etc., all clay gravel. S. M. Adams, Mobile, engr. Noted May 12.

La., New Orleans—City plans to pave 17 and repave 8 streets, granite blocks, creosoted wood block, vitr. brick, bituminous concrete, bithulithic Trinidad Lake asphalt, sheet asphalt, natural asphalt, gravel chert, etc. Bids for material will be received about Aug. 11. A. Klorer, city engr.

Michigan—State Highway Dept., Lansing, plans to grade, drain and surface Federal Aid Project 58 Sects. B and C, Eaton and Barry counties, involving 19,358 cu.yd. excav., 20,651 sq.yd. gravel; also 1 mi. State Trunk Line Rd. 12-34, Iron Co., concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Michigan — State Highway Dept., Lansing, soon receives bids grading, draining and surfacing 1 mi. State Trunk Line Rd. 15-3, Sect. A, Mackinac Co., concrete or bituminous concrete; 3 mi. State Trunk Line Rd. 15-11, Menominee Co., stone-gravel; 15½ mi. Federal Aid Project 60, Antrim and Sheboygan Counties, gravel and macadam. F. F. Rodgers, Lansing, state highway comr.

Mich., Detroit—City plans to pave Baker St. from point 200 ft. east of Campbell Ave. to east curb, cost $15,150, Calahan Ave. from Springwells to Lawndale Aves., $31,920, sheet asphalt on 8 in. concrete base; also alley between Brush, Beaubien, Harper and Piquette Aves., $2,070, alley between Seminole, Iroquois, Duncan and Harper Aves., $3,040, alley between Crane, Rolfs, Mack and Sylester Aves., $5,950, alley between Hartford, Scotten, Scovel and Tireman Aves., $3,320, alley between Field, Sheridan, Mack and Sylester Aves., one course rein.-con. C. W. Hubbell, city engr.

Ill., Carlinville—City plans to pave various streets, vitr. brick on concrete base. About $100,000. Private plans.

Ill., Champaign—City rejected bids paving 3 mi. McKinley Ave., brick on 5 in. concrete foundation. About $50,000. I. E. Pearman, clk. Private plans. Noted May 12.

Ill., Effingham—City plans to pave, curb and gutter North 3rd St., brick and concrete base. About $25,000. G. Austin, engr.

Ill., Joliet—City having plans prepared paving Line St., brick on concrete base. About $25,722. A. S. Calkins, Joliet Natl. Bank, engr.

Ill., Lincoln—City plans to pave Sangamom St., brick or asphalt on concrete base. About $40,000. W. E. Bates, Lincoln, engr.

Ill., Mt. Vernon—City having plans prepared for paving 2 mi. various streets, vitr. brick with concrete curbs and gutters. About $65,000. A. C. Stansfield, Pana, engr.

Ill., Quincy — City had plans prepared paving Vine St., brick or asphalt. About $25,000. L. L. Harper, Quincy, engr.

Wis., Shawano—City had plans prepared and soon receives bids paving 15 blocks Franklin, Green Bay and Picnic Sts., various types of pavement. L. P. Pelishek, Clintonville, engr.

Ia., Des Moines—City plans to repave about 8 blocks, Laurel and 5th Sts., Grand and Penn Aves. About $25,000. A. E. McGlothen, clk.

Ia., Jefferson—City plans to pave about 10 blocks Vine and Washington Sts. About $30,000. E. B. McGlothen, clk.

Streets and Roads (Continued)

Minn., Hastings—Dakota Co. plans to pave 2 mi. Lyndale Ave. Rd. About $56,-000. C. L. Methven, Hastings, engr.

N. D., Fargo—Until Aug. 10, by Cass Co., grading and surfacing Red Trail between Cheyenne River and railroad tracks at Mapleton. About $25,000. W. R. Tucker.

Missouri—State Highway Dept., Jefferson City, plans to build 1.77 mi. state road from Richmond northwood. State Aid S 20.65, Ray Co., involving 9,603 cu.yd. earth and 7,485 cu.yd. rock excav., 174.8 cu.yd. Class B, and 5.5 cu.yd. Class C concrete masonry, etc. About $27,845. A. Graham, state highway engr.

Missouri—State Highway Comn., Jefferson City, plans to improve 4.94 mi. State Aid Project S20.54, from Macon northward and southward. Macon Co., involving 30,069 cu.yd. earth excav., 2,287 cu.yd. borrow, 184.7 cu.yd. Class B and 20.8 cu.yd. Class C concrete masonry and 13,270 lb. reinforcing steel, etc. About $26,680. A. Graham, state highway engr.

Missouri—State Highway Dept., Jefferson City, plans to pave 2.25 mi. state road from Jackson northward, involving 14,674 cu.yd. earth excav., 3,393 cu.yd. borrow, 127.8 cu.yd. Class B and 23.2 cu.yd. Class C concrete masonry, etc., cost $14,499; 5.23 mi. state road from Holland northeast, 25,245 cu.yd. earth excav., 6,643 cu.yd. borrow, 16.7 cu.yd. Class B concrete, $18,513; 4.94 mi. from Bolivar eastward and westward, 25,549 cu.yd. earth excav., 3,242 cu.yd. rock excav., 5,129 cu.yd. borrow, $27,294.

Mo., Mexico—City plans to improve Liberty St. from Clark St. to city limits, bituminous macadam on concrete base. About $25,000. W. Dearing, clk. Engineer not selected.

Mo., St. Joseph—City plans to pave 22nd St. from Felix to Messanie Sts., asphalt on concrete base, cost $27,719; Frederick and Edmond Sts., brick on concrete base, $29,-800. C. Nowland, pres. Pub. Wks. Private plans.

Utah, Ogden — City plans to pave Dist. 136, involving 5,000 cu.yd. excav., 15,000 sq.yd. plain concrete, 8½ in. center and 6 in. sides, cost $49,500; Dist 134, 83,560 sq. yd. 3 in. asphalt on 6 in. concrete base, 3,000 cu.yd. common earth excav., $306,511; Dist. 155, 5,800 sq.yd. 3 in. asphalt on 6 in. concrete base, $16,000; Dist. 134, 30,600 lin.ft. concrete curbing and guttering. J. M. Tracy, city engr.

Wash., Vancouver—City plans to pave Columbia St. from 11th to 19th Sts., concrete. About $26,000. W. Schwarz, Vancouver, engr.

Ont., Toronto—Bd. Control soon receives bids paving 9,500 sq.yd. Gerrard St. from Pope Ave. to Leslie St., cost $47,168. 1,900 sq.yd. from Logan to Pope Ave., $9,448. asphalt on 6 in. concrete base. R. C. Harris, city engr.

Ont., Toronto—City plans to widen Yonge St. from Farnham Ave. to Heath St., asphalt, cost $49,230, from Summerhill to Farnham Aves., granite block, $25,964, Glen Eml to Merton Sts. asphaltic concrete, $54,-156, Heath St. to north city limits, asphalt, $557,565, all on concrete base, with brick block gutters and concrete curbs. R. C. Harris, city engr.

BIDS DESIRED

Massachusetts—Until Aug. 2, by State Highway Dept., Boston, paving 4,300 ft. state highway in Norwell, 18 ft. wide, macadam, cold bituminous treatment, cost $35,000; 2,400 ft. in Framingham, 18 ft. wide, bituminous concrete, $22,000; 1,700 ft. in Sterling, 18 ft. wide, gravel $15,000. A. W. Deane, 413 Statehouse, Boston, engr.

Connecticut—Until Aug. 2 by C. J. Bennet, state highway comr., 240 Farmington Ave., Hartford, paving state highways in towns of Wilton, Groton, Torrington, Killingly and Windsor; advertised in this issue.

New York—Until Aug. 12, by H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, improving highways in Essex, Herkimer, Lewis, Orange, Orleans, Saratoga and Wyoming Counties; also reconstructing highways in Albany, Greene, Lewis, Livingston, Montgomery, Schuyler and Yates Counties. J. C. Finch, secy.; advertised in this issue.

New York—Until Aug. 16, by H. S. Sisson state highway comr., Albany, improving highways in Allegany, Cayuga, Chautauqua, Erie, Oswego, Otsego, Scholharie and Suffolk counties; reconstructing highways in Allegany, Chemung, Columbia, Monroe, Schenectady, Steuben and Westchester counties; advertised in this issue.

N. Y., Brooklyn—Until Aug. 3, by E. Riegelmann, boro pres., Boro Hall paving East 15th St., Benson and Sutter Aves., permanent asphalt, Kings Highway, etc., bituminous macadam; regulating, curbing and laying sidewalks on Terrace Pl., 36th St. frm Tehama to Louisa Sts., West 35th, West 36th and West 39th Sts.; regulating and paving 39th St.; regulating and grading, etc., 77th St. and 20th Ave., reregulating and resurfacing 84th St.; recurbing and laying sidewalks on 84th St.; regulating and paving Kingston Ave.; furnishing and delivering 150 ton asphalt joint filler.

N. Y., New York—Until Aug. 1, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., widening and repaving 181st St. from Amsterdam to St. Nicholas Aves., asphalt brick, etc. About $25,000.

New Jersey—Until Aug. 17, by State Highway Comn., Broad St. Bank Bldg., Trenton, building road from Madison to Chatham, Route 5, Sect. 4, Morris Co., bituminous concrete on concrete base. A. L. Grover, ch. clk.; advertised in this issue.

Maryland—Until Aug. 2, by State Highway Comn., 601 Garrett Bldg., Baltimore, paving 1 mi. state highway in Cecil Co., Contr. Ce-36, and 1.37 mi. in Cecil Co., Contr. Ce-25. J. N. Mackall, chn.; advertised in this issue.

W. Va., Richmond—Until Aug. 18, by R. Richards, city recdr., paving West Main St. between Oakland Ave. and 1st St., Riverside Drive between Greenbier Rd. intersection and Boggs Ave., East Main St. between Virginia St. and Park Pl.

Fla., Mt. Dora—Until Aug. 2, by Town Council, paving and grading 4½ mi. road, involving 25,000 sq.yd. brick or other hard surface pavement. About $30,000. Engineer not named.

Ga., Dawson—Until Aug. 2, by Bd. Comrs. Rds. and Revenues Terrell Co. constructing 9.1266 mi. Dawson-Cuthbert Rd. Federal Aid Project 208, involving 26,818 cu.yd. earth excav., 13,803 cu.yd. borrow, 24,089 cu.yd. sand clay surfacing, etc. State Highway Dept. will furnish cement.

Ohio—Until Aug. 5, State Highway Comn., Columbus, grading, building bridges and culverts and paving roads in the following counties:

Butler Co., Sect. "A-2" Eaton-Middletown rd., 1.192 mi., brick, cost $68,748 (state to furnish brick); bituminous macadam, $48,696.

Sect. "B-1" Eaton-Middletown rd., 2.527 mi. brick, $179,708, (state to furnish brick) bituminous macadam, $136,900.

Stark Co., Sect. "F" Navarre-Berlin Rd., 0.93 mi., brick, $55,270 (state to furnish brick).

Trumbull Co., Sect. "T" Warren-Sharon Rd., 1.51 mi., brick, $92,548 (state to furnish brick).

Vinton Co., Sect. "F" McArthur-Jackson Rd., 0.31 mi., bituminous macadam, $6,470.

Butler Co., Sect. "D" Hamilton-Middletown Rd., 4.15 mi., resurfacing, sheet asphalt, $128,996.

Minn., Rochester—Until Aug. 9, by Olmsted Co., improving State Aid Job 2103, involving 49,000 cu.yd. earth, 3,500 cu.yd. loose rock, 500 cu.yd. solid rock excav., 40,-000 cu.yd. over haul, 140 cu.yd. concrete, 8,976 lb. reinforcing steel, etc. About $25,000. G. H. Smith, Rochester, engr.

O., Bellaire—Until Aug. 10, by City Comrs., paving 74,195 sq.yd. Guernsey and Crescent Sts., brick or concrete, involving 1,950 lin. ft. concrete curbing, 11,966 cu.yd. earth excav., etc. About $25,000. H. C. Althar, city engr.

O., Cleveland—Until Aug. 3, by city, grading, draining and paving, Arlington and Chester Aves., East 55th and West 88th Sts. About $75,000. R. Hoffman, City Hall, engr.

Mich., Baldwin—Until Aug. 4, by State Highway Dept. at office Bd. Rd. Comrs. Lake Co., grading, draining and surfacing 7.048 mi. State Trunk Line Rd. 20-18, involving 66, 858 cu.yd. excav., 66,140 sq.yd. gravel, etc. F. F. Rodgers, Lansing, state highway comr.

Mich., Bessemer—Until Aug. 4, by State Highway Dept., at office Bd. Rd. Comrs. Gogebic Co., grading, draining and surfacing 6.738 mi. State Trunk Line Rd. 12-26 involving 29,027 cu.yd. excav., 63,250 sq. yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Big Rapids—Until Aug. 4, by State Highway Dept. at office Bd. Rd. Comrs. Mescota Co., grading, draining and surfacing 1.647 mi. State Trunk Line Rd. 13-30, Sect. A and B, 1.098 mi. to be surfaced with concrete or bituminous concrete and 0.549 mi. with bituminous concrete wearing surface, involving 17,634 cu.yd. excav., 5,266 sq.yd. concrete, etc. F. F. Rodgers, Lansing, state highway comr.

Mich., Cadillac—Until Aug. 1, by State Highway Dept., at office Bd. Rd. Comrs. Wexford Co., grading, draining and surfacing 1.229 mi. State Trunk Line Rd. 13-8, Sect. A, 0.843 mi. to be paved with concrete or macadam and 0.386 mi. with gravel, involving 5,559 cu.yd. excav., 3,261 sq.yd. gravel and 9,935 sq.yd. concrete, bituminous concrete, waterbound macadam or bituminous macadam. F. F. Rodgers, Lansing, state highway comr.

Mich., Caro—Until Aug. 8, by State Highway Dept. at office Bd. Rd. Comrs. Tuscola Co., grading, draining and surfacing 0.92 mi. State Trunk Line Rd. 31-8, involving 3,770 cu.yd. excav., 10,720 sq.yd. concrete, bituminous concrete or bituminous macadam. F. F. Rodgers, Lansing, state highway comr.

Mich., Cassopolis—Until Aug. 2, by State Highway Dept., at office Bd. Rd. Comrs. Cass Co., grading, draining and surfacing 4.381 mi. State Trunk Line Rd. 62-2, Sects. B and C, involving 11,819 cu.yd. excav., 57,658 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Coldwater—Until Aug. 3, by State Highway Dept., at office Bd. Rd. Comrs. Branch Co., grading, draining and surfacing 1.225 mi. State Trunk Line Rd. 29-3, involving 5,502 cu.yd. excav., 17,112 sq.yd. concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Mich., Houghton—Until Aug. 2, by State Highway Dept. at office Bd. Rd. Comrs. Kalkaska Co. grading, draining and surfacing State Trunk Line Rd. 26-9, involving 914 cu.yd. excav., 8,272 sq.yd. bituminous concrete, 2,716 sq.yd. concrete base. F. F. Rodgers, Lansing, state highway comr.

Mich., Houghton—Until Aug. 4, by State Highway Dept. at office Bd. Rd. Comrs. Kalkasha Co., grading, draining and surfacing 5.12 mi. State Trunk Line Rd. 13-20, (0.448 mi. to be surfaced with concrete and 4.672 mi. with gravel) involving 17,634 cu.yd. excav., 5,262 sq.yd. concrete and 43,-796 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Iron Mountain—Until Aug. 5, by State Highway Dept., at office Bd. Rd. Comrs. Dickinson Co., grading, draining and surfacing 3.883 mi. State Trunk Line Rd. 90-1. Sect. A, involving 20,512 cu.yd. excav., 36,451 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Lapeer—Until Aug. 4, by State Highway Dept., at office Bd. Rd. Comrs. Lapeer Co., grading, draining and surfacing State Trunk Line Rd. 38-5, involving 21,852 cu.yd. excav., 35,788 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Ontonagon—Until Aug. 3, by State Highway Dept. at office Bd. Rd. Comrs. Ontonagon Co., grading, draining and surfacing 6.21 mi. State Trunk Line Rd. 68-1, Sects. A-1 and A-28 B, involving 19,243 cu.yd. excav., 57,441 sq.yd. waterbound or bituminous macadam. F. F. Rodgers, Lansing, state highway comr.

Mich., Port Huron — Until Aug. 5, by State Highway Dept., at office Bd. Rd. Comrs. St. Clair Co., grading, draining and surfacing 7.06 mi. State Trunk Line Rd. 21-13, Sects. B, E and F, involving 3,581 cu.yds. excav., 75,703 sq.yd. concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Mich., St. Johns—Until Aug. 5, by State Highway Dept., at office Bd. Rd. Comrs. Clinton Co., grading and draining 5.265 mi. Federal Aid Project 39, Sect. A, involving 21,899 cu.yd. excav. F. F. Rodgers, Lansing, state highway comr.

Mich., Sandusky—Until Aug. 10, by State Highway Dept., at office Bd. Rd. Comrs. Sanilac Co., grading, draining and surfacing 6.113 mi. Federal Aid Project 51, Sect. B, involving 6,886 cu.yd. excav., 296 sta. grading, 57,229 sq.yd. gravel. F. F. Rodgers, Lansing state highway comr.

Streets and Roads (Continued)

Mich., Traverse City—Until Aug. 3, by State Highway Dept. at office Bd. Rd. Comrs. Grand Traverse Co., grading, draining and surfacing 2.094 mi. State Trunk Line Rd. 11-12, Sect. A, involving 7,464 cu. yd. excav., 23,471 sq.yd. concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Ill., Waukegan—Until Aug. 3, by Rd. and Bridge Comn., at office of C. E. Russell, supt. highways Lake Co., constructing 4.6 mi. of 18 ft. Co. Bond Issue, State aid concrete road; advertised in this issue.

Wis., Cedarville—Until Aug. 20, by A. Roemer, chn. town of Amberg, grading, clearing, etc, 1¾ mi. Town Line Rd. east of here, for Amberg and Wausaukee twps.

Minn., Mankato—Until Aug. 10, by Blue Earth Co., improving Job 2106, Sect. B, State Highway 1, involving 50,000 cu.yd. excav., 70,000 cu.yd. overhaul, 10,000 lin.ft. 6 in. tile and 5 rein.-con. culverts. About $25,000. N. Moe, Mankato, engr.

Kan., Wichita—Until Aug. 4, by Sedgwick Co., paving 5.6 mi. Federal Aid Project 54, 18 ft. wide, brick surface on concrete base. About $250,000. M. Rosenberry, Wichita, engr.

Missouri—Until Aug. 8, by State Highway Dept., Trenton, building 1.53 mi. state road from Trenton, westward, Federal Aid Project 116, Sect. A, Grundy Co., involving 24,692 cu.yd. earth and 603 cu.yd. rock excav., 30,858 cu.yd. borrow, 66.5 cu.yd. Class B and 8.8 cu.yd. Class C concrete masonry, etc., cost $39,258; 0.62 mi. state road from Edinburg, eastward, State Aid Project S 20.53, Grundy Co., 17,551 cu.yd. earth and 1,000 cu.yd. rock excav., 600 cu.yd. borrow, 44.7 cu.yd. Class B and 29.4 cu.yd. Class C concrete masonry, etc., $19,827. A. Graham, Jefferson City, state highway engr.

Missouri—Until Aug. 9, by State Highway Dept., Troy, paving 3.76 mi. State Aid Project S2069, from Troy eastward and westward, involving 20,097 cu.yd. earth and 854 cu.yd. rock excav., 244.5 cu.yd. Class B and 44.1 cu.yd. Class C concrete masonry, 10,610 lb. reinforcing steel, etc. About $25,344. Address State Highway Dept., Jefferson City.

Mo., Weston—Until Aug. 2, by Weston Co., surfacing various streets, involving 30,000 sq.yd. brick or asphalt on concrete base. About $150,000. G. A. Stockley Eng. Co., Graphic Arts Bldg., Kansas City, engrs. Noted July 14.

Tex., Austin—Until Aug. 4, by G. S. Mathews, judge Travis Co., grading, surfacing and draining 9.15 mi. State Highway 20, Kimbro Dist. About $250,000 including 10% for engineering and contingencies. Former bids rejected. Noted July 7.

Cal., Los Angeles—Until Aug. 8, by Bd. Supervs. Los Angeles Co., paving 5,339 ft. Santa Monica Blvd. from La Brea to Fairfax Aves., involving 23,268 sq.yd. 6 in. concrete, 22,665 sq.yd. waterbound macadam, 7,780 cu.yd. excav., etc. Address Rd. Dept., Hall of Records.

Cal., South Pasadena (Pasadena P. O.)—Until Aug. 8, by City Clerk, paving Spruce St., involving 77,600 sq.yd. 3 in. waterbound macadam, 600 lin.ft. curbs, 7,500 sq.ft. gutters and 3,200 sq.ft. sidewalks, all cement. R. B. Orbison, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

Maine—State Highway Dept., Augusta, received bids July 14 paving 3.59 mi. state highway in Bangor and Veazie, 18 ft. wide, concrete, from Frussell Eng. Co., Gardner, Mass., $64,484; Hassam Paving Co., Worcester, Mass., $75,025; Webster & Morse, Bangor, $88,749; 3.1 mi. in Turner and Livermore, 18 ft. wide, gravel, from Thomas & Murphy, Keene, N. H., $53,818; J. H. Kerr, Rumford, $53,876; J. Staeford, Bar Harbor, $55,448. Noted July 7.

New Hampshire—State Highway Dept., Concord, received bids July 15 paving section state highway in Keene, 18 ft. wide, concrete, from Portland Constr. Co., Portland, Me., $33,855; Winslow & Cummings, Nashua, $35,336; Frissell Eng. Co., Gardner, Mass., $36,077.

★Conn., Warehouse Point—City let contract paving roadway and sidewalks of Connecticut River Bridge between here and Windsor Locks, bituminous, to Immick Co., State St., Meriden. About $25,000.

★Massachusetts — State Highway Dept., Boston, let contract paving 8,880 ft. state highway, in Brookfield and West Brookfield, 21 ft. wide, rein.-con., to Middlesex Constr. Co., Medford, $101,556; 28,500 ft. in Winchendon and Templeton, 18 ft. wide, bituminous macadam, to Lane Constr. Co., 37 Colony St., Meriden, Conn., $209,029; 9,200 ft. in Barre and Oakman, 18 ft. wide, bituminous macadam, to Canton Eng. Co., Canton, $76,069. Noted July 21.

★N. Y., Brooklyn—E. Reigelmann, boro pres., Boro Hall, let contracts to Borough Asphalt Co., 1301 Metropolitan Ave., regulating and paving Lott Ave. from Bristol to Chester Sts., $3,732, Malta St., $8,032, Osborn St., $7,817 Stone Ave. $9,783; to Cranford Co., 152 9th St., Lott Ave. from Sackman to Powell Sts., $3,496; to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., 78th St., $14,102, Conover St., $9,626, 32nd St., $7,941 Ocean Ave., $76,073; to Sicilian Asphalt Paving Co., 41 Park Row, New York City, Decatur St., $29,197; to C Gallagher, 745 Dean St., Sheepshead Bay Rd., $10,037; to Williams Constr. Co., regulating, grading and curbing Dikeman St., $880; to L. Mangieri, 190 31st St., 78th St., $7,436. Noted July 21.

★N. Y., Brooklyn—Park Bd. at office of Dept. Parks, Municipal Bldg., New York City, let contract improving Ocean Parkway between Coney Island Creek Bridge and Coney Island Concourse, to C. Gallagher, 745 Dean St., $24,899. Noted July 21.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, let contract regulating and grading westerly side of Bell Ave., to R. A. Hess, Inc., Corona, $24,726; 86th St., etc., to Kennedy & Smith, Inc., 93 Amity St., Flushing, $28,826; Ralph St., etc., to Welsh Bros. Contg. Co., 32 Queens St., Astoria, $10,498; Decatur and Ridge Sts., etc., to Cleveland Trinidad Paving Co., Flushing, $10,416 and $20,483 respectively. Noted July 14.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, 68 Hunterspoint Ave., opened bids July 20, regulating and curbing, etc. (1) Manly St. from Thomson to Hunterspoint Aves., 1st Ward; curbing recurbing (where necessary) and paving (2) 7th Ave. from Grand to Flushing Aves., 1st Ward; sheet asphalt; regulating and grading, (3) Van Pelt St. from Queens Blvd. to Skillman Ave., 1st Ward, (4) Fiske Ave. from Grand St. to northerly curb line of Faulkner St., etc., (5) 80th St. (Leggett Ave.) from Park Lane south to Jamaica Ave., 4th Ward; regulating and paving, (6) Cherry Ave. from Parsons Ave. to Phlox Pl., etc.; preliminary bituminous macadam regulating and repaving (7) 7th Ave. from 6th to 13th Sts., etc., asphalt block, from

C. Kurth, 9519 126th St., Richmond Hill, (1) $5,274.

F. J. Clancy, 87 Bway., Astoria, (1) $5,931, (5) $36,275.

J. Goss Co., Inc., $5,931.

Kennedy & Smith, Inc., 94 Main St., Flushing, (1) $6,570, (5) $35,942, (6) $4,032.

Cleveland Trinidad Paving Co., Flushing, (2) $25,682.

Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (2) $26,437.

W. P. McDonald Constr. Co., 618 Union St., Brooklyn, (2) $28,816.

S. S. Jones Contg. Corp., (3) $5,090.

Contractors Serv. Corp., 288 Jackson St. Greenpoint, (3) $4,681. J. J. Mac Intyre, (3) $5,528.

Casalino Contg. Co., 299 Withers St., Brooklyn, (4) $15,417.

Welsh Bros. Contg. Co., 14 Queens St., Astoria, (4) $17,844.

H. E. Kordes Co., 2557 Cooper St., Brooklyn, (4) $18,535, (5) $33,987.

Tuohy & Upton, Inc., 98 Main St., Flushing, (6) $3,435.

Peace Bros., Inc., 20 Main St., Flushing, (6) $3,760.

H. J. Mullen Contg. Co., Fulton St., Jamaica, (7) $79,478.

Necaro Co., Inc., 97 Court St., Brooklyn, (7) $80,623.

Hastings Pavement Co., 25 Broad St., New York City, (7) $81,859. Noted July 14.

N. J., Salem—Salem Co. received bids July 25, paving with concrete 47,000 sq.yd. road from Woodstown to here, 20 ft. wide, from M. Staub, Swedesboro, $166,600; Sutton & Corson, 9th and Simpson Sts., Ocean City, $185,300; R. Sangivanni, 80 Hoyt St., Newark, $187,300. Noted July 7.

★Pa., Phila.—City let contract to Eastern Paving Co., Colonial Trust Bldg., paving 55th St. from Florence to Willows Aves., $30,050, Federal St. from Broad to Grays Ferry Aves., $65,500, Ridge Ave. from Susquehanna to Indiana Aves., $101,000; Union Paving Co., 30th and Locust Sts., Delaware Ave. from Vine to Chestnut Sts., $149,000; T. E. James, 5431 North Front St., Main St. from Leverington to Harvey Aves., $104,000.

★Pa., Phila.—City let contracts paving 6th St., to Ryan Constr. Co., Real Estate Trust Bldg., $103,890; 5th and 6th Sts. from Allegheny to Erie Aves., to Brown-King Constr. Co., Commercial Trust Bldg., $86,273; 5th St., to McLaughlin & Flood, 2005 Fitzwater St., $131,348; 5th and 6th Sts. from Wharton to Snyder Aves., to R. Lombardi, 601 Lincoln Bldg., $80,815; Delaware and Woodland Aves., to Acchione & Canuso, 763 South 12th St., $131,343 and $69,129 respectively; Woodland and Germantown Aves., to Union Paving Co., 30th and Locust Sts., $57,234 and $83,112 respectively; Main 22d and Fairhill and Harrocks Sts., to Eastern Paving Co., Colonial Trust Bldg., $73,410, $53,615, $14,494 and $9,053 respectively; Ridge Ave. from Indiana Ave. to School House Lane, to M. J. McCrudden 1134 Real Estate Trust Bldg., $100,667; Ridge Ave. from Columbia to Susquehanna Aves., to Fish-Rutherford & Co., 702 Real Estate Trust Bldg., $74,361.

★W. Va., Huntington—Cabell Co. let contract grading, draining and paving with macadam on sandstone base, 1½ mi. Chesapeake-Kimballville Rd., to Brewer & Brewer, Chillicothe, O., $28,045.

North Carolina—State Highway Comn., at div. office, Tarboro, opened bids July 21, grading and paving 9.57 mi. road, State Project 609, Pitt Co., from Cheatwood & Driscoll, 511 West 12th St., Richmond Va., $237,106; A F McConville, Ogdensburg, N. Y., $237,207; P. R. Ashby, Tucker Bldg., Raleigh, $260,025. Noted July 14.

North Carolina—State Highway Dept., at div. office, Kinston, opened bids July 22, clearing, grubbing, grading, draining and paving 2.65 mi. State Project 516, Craven Co., from Eagle Eng. Co., New Bern, $103,153; P. R. Ashby, Tucker Bldg. Raleigh, $104,341; Davis Constr. Co., Kinston, $105,007. Noted July 21.

North Carolina—State Highway Comn., at div. office, Durham, opened bids July 18, clearing, grubbing, grading, draining and paving 5.8 mi. State Project 573, Durham Co., involving 8 acres clearing and grubbing, 13,200 cu.yd. common excav., 312 ft. 15-24 in. concrete pipe, 108 cu.yd. Class B and 60 cu.yd. Class A concrete, 61,320 sq.yd. concrete pavement, and 4,640 lb. reinforcing steel, from Hutton Eng. & Contg. Co., Savannah, Ga., $192,340; Pittman Constr Co., Rhodes Bldg., Atlanta, Ga., $193,425; R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, $200,559.

North Carolina—State Highway Comn., at div. office, Charlotte, opened bids July 20, grading, scarifying and reshaping 2.28 mi. road, State Aid Project 591, Union Co., from Redman Constr. Co., Monroe, $59,424; Dunn Constr. Co., Birmingham, Ala., $60,399; Simmons Contg. Co., Charlotte, $61,993. Noted July 14.

Ohio—State Highway Comn., Columbus, rejected bids received July 22, improving roads in following counties:

Allen Co., Sect. "A-1" West Minster-New Hampshire Rd., 1.051 mi., grading, constructing bridges and culverts paving with Kentucky rock asphalt or bituminous macadam.

Cuyahoga Co., Sect. "J" Twinsburg-Elyria Rd., concrete bridge.

Wyandot Co., Sects. "G-1" and "G-2" Findlay-Upper Sandusky Rd., 4.170 mi., paving with bituminous macadam. Noted July 7.

Ohio—State Highway Comn., Columbus, opened bids July 22, for maintenance and repair work in the following counties:

Columbiana Co., Sect. "B" Ohio River Rd., constructing culvert, from Allison Harrison Co., East Liverpool, $8,270; G. B. Batterson, Wellsville, $8,990.

Hamilton Co., Sect. "B" Harrison Pike, grading roadway and paving with bitoslag over large fills, Scully Bros., Harrison Pike, Cincinnati, $19,015.

Sect. "A" Carthage-Hamilton Rd., constructing crib division wall in west fork of Mill Creek, Iliff Bros., London, $3,796; F. Ritter, Cincinnati, $3,819; P. Preachter, 2935 Gerard St., Cincinnati, $3,850.

Henry Co., Sect. "B" Bryan-Napoleon Rd., 1.44 mi., paving with 5 in. macadam, Stone & Heil, Lima, $16,739; J. A. West-

Streets and Roads (Continued)

rick & Son, Napoleon, $18,921; C. V. Rector, Muncie, Ind., $19,335.

Jefferson Co., Sect. "D" and "E" Canton-Steubenville Rd., 4.02 mi., widening old road and paving with bituminous macadam, (T-1) R. H. Shafer, Columbus, $45,884; Seaborne Bros., Youngstown, $49,664; Gray Bros., Youngstown, $49,664; same paving with bituminous macadam, (A-1) R. H. Shafer, Columbus, $45,506.

Ottawa Co., Sect. "H" Toledo-Elmore Rd., 0.99 mi., paving with rein.-con., Barnes & Tabbert, Rocky Ridge, $21,912; H. J. Shaw, Toledo, $22,097; A. C. Schultz, 1496 Lincoln Ave., Cleveland, $22,282.

Pike Co., Sect. "B" Columbus-Portsmouth Rd., 0.812 mi., grading roadway constructing curb and paving with concrete, Anderson-Brown, Chillicothe, $28,615; Rennick & Smith, Columbus, $29,129; Kelly Dunham, Waverly, $31,945.

Richland Co., Sect. "G" and "K-1" Mansfield-Galion Rd., 2.99 mi., repairing and resurfacing with 5 in. macadam, J. Herzog, Forest, $43,316; W. Sousley, Ada, $46,944; M. Cledhill, Galion, $47,418.

Stark Co., Sect. "A" Canton-Canal Dover Rd., 1.48 mi., resurfacing with brick, Burke Constr. Co., Canton, $49,852; D. E. McCoy, Canton, $50,199; G. W. Hadley, Canton, $51,457.

Wood Co., Sect. "A" Bowling Green-Port Clinton Rd., 2.57 mi., resurfacing with bituminous macadam (A-1) Finch Eng. Co., Bowling Green, $24,196; Creager Bros., Liberty Center, $26,372; Johnson, Van Wagner & Johnson, Tontogany, $25,888; same paving with bituminous macadam, (T-1) Finch Eng. Co., Bowling Green, $26,384; Wise Bros. & Burman, Elmore, $26,152. Noted July 7.

Ohio—State Highway Comn., Columbus, opened bids July 22, grading, constructing bridges and culverts and paving roads in following counties:

Ashland Co., Sect. "A" Mansfield-Ashlnad Rd., 1.85 mi., monolithic brick, from D. A. Phillips, Ashland, $78,429; F. J. Mann & Sons, Ashland, $79,450; Cavenaugh-DeNiro, Youngstown, $81,245; same paving with brick, F. J. Mann & Sons, Ashland, $88,220; D. A. Phillips, Ashland, $89,013.

Sect. "B" Mansfield-Ashland Rd., 3.523 mi., grading roadway and constructing bridges and culverts only, H. D. Long, Marion, $60,257; 3126 West 86th St., John F. Connors, Cleveland, $62,243; Buckeye Constr. Co., Akron, $62,560.

Ashtabula Co., Sect. "C" Youngstown-Conneaut Rd., 4.997 mi., monolithic brick, McDermott & Hennin, Niles, $171,272; Fitzgerald Co., Ashtabula, $185,890; same paving with bituminous macadam, Gray Bros., Youngstown, $175,822; McDermott & Hannin, Niles, $185,205; Fitzgerald Co., Ashtabula, $193,649.

Coshocton Co., Section "West Lafayette" Newcomerstown-Coshocton Rd., 0.915 mi., monolithic brick, Henderson Bros., Coshocton, $38,047; T. J. Norman Sons, West Lafayette, $39,335; same brick (state to furnish brick) T. Mohler Co., Mansfield, $25,163; same plain concrete, Henderson Bros., Coshocton, $31,583; T. Mohler Co., Mansfield, $32,014.

Crawford Co., Sect. "K" Columbus-Sandusky Rd., 2.034 mi., brick, D. R. McMichael, Bucyrus, $92,581; E. A. Freshwater & Sons, Painesville, $97,623; Scioto Cnstr. Co., Kenton, $97,644; monolithic brick, E. A. Freshwater & Sons, Painesville, $96,479; D. R. McMicheal, Bucyrus, $99,302.

Sect. "M" and "N" Marion-Bucyrus Rd., 6.705 mi., brick, from Drake, Aller & Sheridan, Worthington, $298 844; E. A. Freshwater, Painesville, $297,108; Dorsey Co., Findlay, $300,600; same paving with monolithic brick, E. A. Freshwater, Painesville, $288,479; Dorsey Co., Findlay, $290,000; W. H. Rungwold Co., Chillicothe, $292,885.

Delaware Co., Sect. "A-1" Delaware-Marysville Rd., 1.1756 mi., bituminous macadam, J. L. Edwards, Sunbury, $32,196; C. A. Baker, 91 West Goodals St., Columbus, $32,888; C. A. Conley, Columbus, $35,569; same paving with rein.-concrete, E. A. Freshwater, Painesville, $45,556 R. K. McNamara, Delaware, $45,784.

Erie Co., Sect. "B" Lima-Sandusky Rd., 2.573 mi., concrete, A. C. Schultz, 1496 Lincoln Ave., Cleveland, $93,990; Homeberger-Wagar Co., Sandusky, $97,090; A. J. Baltes, Norwalk, $97,241.

Sect. "Q" Sandusky-Norwalk Rd., 0.42 mi., concrete and brick, J. Strauss, Castalia, $18,997; A. J. Baltes, Norwalk, $19,639; A. C. Schultz, 1496 Lincoln Ave., Cleveland, $20,984.

Fulton Co., Sect. "Delt" Toledo-Wauseon Rd., 0.451 mi., rein.-concrete, LeBriteaux & Hayes, Toledo, $25,506; J. A. Elder, Bryan, $26,385; J. J. Johnson, Napoleon, $26,751.

Greene Co., Sect. "B" Springfield-Jamestown Rd., 6.9 mi., bituminous macadam, (T-1) Connell & Laub Dayton, $175,032; D. W. Botkins & Son, Columbus, $174,492; W. H. Ringwald, Chillicothe, $176,978; same paving with bituminous macadam (T-A), T. V. Van Camp, Cincinnati, $170,933; Connell & Laub, Dayton, $175,032; D. W. Botkin & Son, Columbus, $176,485.

Hardin Co., Sect. "D" Marysville-Kenton Rd., 1.94 mi., bituminous macadam, (T-1) J. Herzog, Forest, $53,285; R. H. Shafer, Columbus, $57,346; W. Sousley, Ada, $58,968; bituminous macadam, (A-1) J. Herzog, Forest, $55,515; T. L. Kenton, $57,545; McArthur Co., Kenton, $58,112.

Sect. "Mt. Victory" Marysville-Kenton Rd., 0.645 mi., bituminous macadam, (T-1) J. Herzog, Forest, $24,662; McArthur Co., Kenton, $23,756; R. H. Shafer, Columbus, $23,823; same paving with bituminous macadam, (A-1) J. Herzog, Forest, $22,543; McArthur Co., Kenton, $23,756; T. L. Kenton, $24,014.

Harrison Co., Sect. "R" Cadiz-Dennison Rd., 3.765, bituminous macadam on rolled base, tar, Billiter & Oliver Bros., Cincinnati, $141,254; Kane Bros. & Seaborne, Youngstown, $139,026; S. T. Frazer & Sons, Bloomingdale, $136,495; same bituminous macadam, asphalt, Billiter & Oliver Bros., Cincinnati, $137,738; H. W. Curry Co., Columbus, $149,994.

Henry Co., Sect. "B-1" Toledo-Napoleon Rd., 5.287 mi., grading and constructing drainage structures only, Mangerink Bros., Napoleon, $34,113; L. J. Benschotter, Toledo, $35,196; F. Walton Co., Upper Sandusky, $35,279.

Hocking Co., Sect. "A-2" Logan-McArthur Rd., 2.623 mi., grading and constructing bridges and culverts only, Young Engineering Co., Engrs. Bldg., Cleveland, $37,067; Post Constr. Co., Cleveland, $39,260; A. E. Simpson, Portsmouth, $40,389.

Holmes Co., Sect. "K" Mansfield-Millersburg Rd., 2.178 mi., monolithic brick, T. D. Mohler Co., Mansfield, $47,203; P. Ritter, Belleville, $54,484; F. J. Mann, Ashland, $58,747; same paving with plain concrete, P. Ritter, Belleville, $49,814; G. W. Hadley, Canton, $53,849.

Sect. "L-1" Mansfield-Millersburg Rd., 2.382 mi., grading and constructing drainage structures only, Young Co., Engrs. Bldg., Cleveland, $22,644; Holmes Co., Millersburg, $25,001; T. D. Mohler Co., Mansfield, $26,225.

Jefferson Co., Sect. H-3" Steubenville-Canbridge Rd., 1.044 mi., brick on rolled base, W. E. Payne, Springfield $63,828; G. W. Hadley, Canton, $64,918; Kane Bros., Youngstown, $65,269.

Knox Co., Sect. 'B-1" Mt. Vernon-Newark Rd., 3.39 mi., monolithic brick, Adams Co., Zanesville, $154,066; Phil Ritter, Belleville, $154,327; E. A. Freshwater, Painesville, $156,069.

Lorain Co., Sect. "Oberlin" Oberlin-Norwalk Rd., 0.265 mi., brick, Elyria Constr. Co., Elyria, $13,996; Highway Constr. Co., Elyria, $14,513.

Sect. "H" Hedina-Norwalk Rd., 1.15 mi., concrete, Elyria Constr. Co., Elyria, $23,849; Aldrich, Allison & Betts, Wellington, $25,291; J. Krasch, Celina, $25,989.

Lucas Co., Sect. "C" Waterville-Swanton Rd., 3.513 mi., two course macadam, J. A. Coon, Swanton, $76,263; A. Langenderfer, Toledo, $77,708; L. J. Boonsholter, Toledo, $80,556.

Monroe Co., Sect. "F" Woodsfield-Sistersville Rd., 2.164 mi., bituminous macadam, (T-1) Sutton Constr. Co., Ashland, $117,844; Culbertson & Casper, Pleasant City, $119,209; Schalfant Constr. Co., Barnesville, $121,369; same bituminous macadam, (A-1) Sutton Constr. Co., Ashland, $117,844; Culbertson & Casper, Pleasant City, $119,209; Gatty Constr. Co., Columbus, $121,585.

Morgan Co., Sect. "K-1" McConnellsville-Caldwell Rd., 1.637 mi., bituminous macadam on rolled base, (T-1) L. H. Nixon, Nelsonville, $60,532; O. G. Shafer, Caldwell, $62,043; bituminous macadam on rolled base, (A-1) L. H. Nixon, Nelsonville, $60,532; Curtis & MacGobghey, McConnellsville, $62,325.

Ottawa Co., Sect. "B-2" and "Port Clinton" Bowling Green Rd., 0.875 mi. plain concrete, E. A. Freshwater, Painesville, $41,880; LaBriteaux Co., Toledo, $41,993; Porturvy, Keener & Bates, Madison, $41,993.

Paulding Co., Sect. "J" Payne-Hicksville Rd., 3.817 mi., plain concrete, Newell & Davoust, Defiance, $115,002; D. B. Putnam, Antwerp, $119,905; W. J. Dull Bros., Arcanum, $130,480.

Sect. "M" Van Wert-Ottawa Rd., 2.865 mi., macadam, J. S. Blausey, Cloverdale, $89,478; Jos. W. Carey, Ada, $92,786; Acton Bros., Vaughnsville, $93,039.

Sect. "Ottoville" Van Wert-Ottawa Rd., 0.595 mi., macadam, Acton Bros., Vaughnsville, $18,948; L. L. Clymer, Bluffton, $19,121; Jos. W. Carey, Ada, $19,440.

Ross Co., Sect. "I-1" Chillicothe-Jackson Rd., 0.462 mi., brick, W. H. Ringwald, Chillicothe, $20,971; Caldwell & Weter, Richmondale, $21,472; Rennick & Smith, Columbus, $21,684.

Sandusky Co., Sect. "D-1" Fremont-Bowling Green Rd., 0.42 mi., brick, Modern Constr. Co., Fremont, $22,147; same paving with bituminous concrete, Modern Constr. Co., Fremont, $19,889.

Seneca Co. Sect. "O" Findlay-Tiffin Rd., 1.044 mi., bituminous macadam, (a-1) P. M. Myers, Attica, $30,999; Peter Schultz, Adrian, Mich., $30,920; F. G Walton Co., Upper Sandusky, $31,306; same paving with bituminous macadam, (T-1) W. H. & H. Souder, Fostoria, $30,874; R. M. Myers, Attica, $30,999; P. Schultz, Adrian, Mich., $31,312.

Sect. "I" Tiffin-Republic Rd., 1.009 mi., bituminous macadam, (A-1) R. M. Myers, Attica, $29,090; W. H. & H. A. Souder, Fostoria, $29,491; J. W. Carey, Ada, $31,404; same paving with bituminous macadam, (A-1) R. M. Myers, Attica, $29,090; W. H. & H. A. Souder, Fostoria, $29,994; same paving with Kentucky rock asphalt, R. M. Myers, Attica, $34,587; W. H. & H. A. Souder, Fostoria, $38,198.

Tuscarawas Co., Sect. "M" Newcomerstown-Uhrichsville Rd., 3.342 mi., monolithic brick, R. H. Shafer, Columbus, $130,281; W. H. Brode Co., Newcomerstown, $140,847; E. A. Freshwater, Painesville, $140,207; same paving with bituminous macadam, (T-1) L. W. Russell, West Austintown, $103,638; same paving with bituminous macadam, (A-1) L. W. Russell, West Austintown, $103,638; same paving with plain concrete, R. H. Shafer, Columbus, $120,661; E. A. Freshwater, Painesville, $118,427.

Sect. "Port Washington" Newcomerstown-Uhrichsville Rd., 0.589 mi., monolithic brick, E. A. Freshwater, Painesville, $23,306; W. H. Brode Co., Newcomerstown, $23,516; Henderson Bros., Coshocton, $24,511; same paving with concrete, E. A. Freshwater, Painesville, $20,357; W. H. Brode Co., Newcomerstown, $20,910; Henderson Bros., Coshocton, $22,015.

Warren Co., Sect. "C-1" Columbus-Cincinnati Rd., 4.42 mi., bituminous macadam, R. H. Shafer, Columbus, $133,235; J. L. Stone, Norwood, $130,642; J. L. Radebaugh, Montgomery, $129,279; same paving with rein.-concrete, Williams & Little, Cleveland Heights (Cleveland P. O.), $129,916; Connell, Laub & Bracht Dayton, $130,551; W. Huber, Eaton, $131,996.

Wayne Co., Sect. "C" Millersburg-Wooster Rd., 1.42 mi., monolithic brick, G. W. Hadley, Canton, $65,121; Griggs & Anderson, Millersburg, $66,893; Freshwater Constr. Co., 9807 Madison Ave., Cleveland, $68,928; same paving with concrete, Holmes Constr. Co., Millersburg, $64,439; G. W. Hadley, Canton, $64,439; Summitt Constr. Co., Akron, $66,729.

Williams Co., Sect. "N-2" West Unity-Montpelier Rd., 0.891 mi., bituminous macadam, (A-1) Walter Sousley, Ada, $24,781; Trumbull Constr. Co., Warren, $26,970; J. A. Elder, Brya, $27,584.

Sect. "West Unity" West Unity-Montpelier Rd., 320.5 ft. bituminous macadam, (A-1) Trumbull Constr. Co., Warren, $1,680; J. A. Elder, Byra, $1,742; H. E. Pratt Co., Mt. Blanchard, $1,903. Noted July 7.

★O., Akron—Dept. Pub. Serv. let contract to McAlonan Bros., improving Beaver St. from East Exchange to Corley Sts., involving 2,885 sq.yd. brick pavement (cement fill), cost $2.10 per sq.yd., total cost $16,882; to T. E. McShaffrey Constr. Co., Forge St., Black St. from Exchange to Johnston Sts., 1,225 sq.yd. sheet asphalt pavement (Pl. B.) Texaco, $2, etc., $10,763, also Howes Ave. from West Market St. to Portage Path, 1,915 sq.yd. sheet asphalt pavement (Pl. B.) Texaco, $2, etc., $10,943.

★O., Cleveland—City let contract grading, draining, curbing and paving Joan Ave. from West Blvd. to West 105th St., asphalt,

Streets and Roads (Continued)

to Cleveland-Trinidad Paving Co., The Arcade, $18,085; Beck Ave. from East 40th St. to East 44th St., brick, to Garland Bros., c/o Pavers' Exch., $3,293; Behrwalk Ave. from Pearl Rd. to West 35th St., brick, to Roehl Bros., West 25th St. and Clark Ave., $27,216; East 130th St. from Iroquois Ave. to south end., to G. B. Herring, Drexel Ave., $20,287; Helena Ave., to Reiley Bros., The Arcade, $9,409. Noted July 7.

★**O., Cleveland**—City let contract grading and paving grade crossing eliminations along New York, Chicago & St. Louis Ry. from Detroit Ave. to Fulton Rd., to Roehl Bros., West 25th St. and Clarke Ave., $122,877. Noted July 21.

★**O., Cleveland**—Cuyahoga Co. let contract improving Harvard Rd. 3, to E. Gedney, 1216 Addison Rd., $36,716. Noted July 7.

★**O., Columbus**—Franklin Co. let contract grading, building bridges and culverts and paving 2.34 mi. Brown Rd., waterbound macadam, to T. D. Van Camp, 155 West McMillan St., Cincinnati, $57,838.

O., Newburg Heights (Cleveland, P. O.)—Village c/o R. Hecker, engr., Leader-News Bldg., Cleveland, received only bid paving and grading East 52nd St., involving 17,852 sq.ft. brick on 6 in. concrete base, from Enterprise Paving & Constr. Co., 8444 Bway., Cleveland. About $38,000.

★**O., Wellsville**—City let contract paving Lisbon St. and Wells Ave., brick on concrete base, to G. B. Patterson, Wellsville. About $80,000.

★**O., Youngstown**—Comrs. Mahoning Co. let contract paving 2.56 mi. Ginger Hill Rd. near Petersburg, Springfield Twp., concrete, to Turner Contg. Co., 25 East Wood St., Youngstown, $74,520.

★**Mich., Algonac**—Village let contract grading, draining and surfacing Front St., concrete, to J. H. Baker & Sons, Port Huron, $38,172. Noted July 7.

★**Mich., Charlotte**—State Highway Dept. at office Bd. Rd. Comrs. Eaton Co. let contract grading, draining and surfacing 7.185 mi. Federal Aid Project 58, Sect. D, to J. B. Clifford, 14 South Canal St., Chicago. Work involves 54,800 cu.yd. excav., $0.50, 329.5 cu.yd. 1:2:4 concrete, $22, 106.8 cu.yd. 1:2½:5 concrete, $21, 89.6 cu.yd. 1:3:6 concrete, $20, 67,442 sq.yd. gravel. $0.4725. Total cost $76,937. Noted June 30.

★**Mich., Detroit**—City let contracts to Detroit Asphalt Paving Co., 20 McGraw Bldg., paving following avenues: American, $15,370; Anderson, $39,167; Arlington, $49,426; Army, $21,749; Collingswood, $9,553; Charlevoix, $88,282; Cavalry, $43,706; Emmons, $11,853; Ladue, $8,433; Medbury, $9,853; May, $7,019; Monica, $13,715; Montclair, $34,017; Piquette, $21,451; Prairie, $40,553; Raymond, $6,639; Stoepel, $16,615; Stair, $24,925; Woodside, $19,952; Cleveland Trinidad Paving Co., 402 Hammond Bldg., Baylis., $45,603; Highland, $4,605; Lawrence, $22,738; Sturtevant, $24,230; Taylor, 33,373. Noted July 21.

★**Mich., Detroit**—City let contract to Liberty Constr. Co., 917 Chamber of Commerce, building Lateral 3457, $8,900; A. Arcari, 400 Penobscot Bldg., Lateral 3458, $12,746, Lateral 3485, $8,427, Lateral 3486, $8,063; L. Kevorkian, 400 Penobscot Bldg., Lateral 3465, $6,402, Lateral 3483, $13,732; H. Fortuna, 4422 St. Aubin Ave., Lateral 3466, $5,400; Oakwood Constr. Co., 165 Fort Bldg., Lateral 3470, $21,000; Western Constr. Co., 1208 Ford Bldg., Lateral 3471, $29,589, Lateral 3493, $23,349; R. D. Baker, 1631 Elmhurst Ave., Lateral 3473, $9,590, Lateral 3475, $4,500, Lateral 3487, $7,000; Detroit Contg. Co., 827 Ford Bldg., Lateral 3488, $7,552. Noted July 14.

★**Mich., Flint**—State Highwy Dept., at office Bd. Rd. Comrs. Genesee Co., let contract grading, draining and surfacing 4.969 mi. State Trunk Line Rd. 54, Sect. B, to G. A. Burley Co., Flint. Work involves 18,982 cu.yd. excav., $0.85, 38.9 cu. yd. 1:2:4 concrete, $20, 109.6 cu.yd. 1:3:6 concrete, $18, 79 catch basins, $65 each, 52,353 sq.yd. bituminous concrete pavement, $3, etc.; total cost, $205,406. Noted June 30.

★**Mich., Hamtramck**—(Detroit P. O.)—Village let contract to Lennane Bros., 2631 Woodward Ave., paving Dequindre St. from Carpenter to Caniff Aves., $82,838, 6,677 sq.yd. Dequindre St. from Poland to Caniff Aves., $62,300, 7,727 sq.yd. Caniff Ave. from Jos. Campau to Conant Aves., $72,589.

★**Mich., Holly**—Village let contract grading, draining and surfacing Maple and Saginaw Sts., involving 1,729 cu.yd excav., 4,690 sq.yd. bituminous concrete, to Bartling & Dull, Pontiac, $37,323. Noted June 30.

★**Mich., Marshall**—State Highway Dept. at office Bd. Rd. Comrs. Calhoun Co., let contract grading, draining and surfacing 2.574 mi. Federal Aid Project 58, Sect. A, involving 24,341 cu.yd. excav., 24,160 sq.yd. gravel, to A. J. Hoffman, North Adams, $25,794.

★**Mich., Pontiac**—State Highway Dept. at office Bd. Rd. Comrs. Oakland Co. let contract grading, draining and surfacing State Trunk Line Rd. 87-1, to Bartling & Dull, Pontiac. Work involves 4,179 cu.yd. excav., $0.85, 20,484 sq.yd. bituminous concrete, $307. Total cost $67,529. Noted June 30.

★**Mich., Port Huron**—State Highway Dept. at office Bd. Rd. Comrs. St. Clair Co., let contract grading, draining and surfacing, 1.886 mi. State Trunk Line Rd. 2716, Sect. B, to J. H. Baker & Sons, Port Huron. Work involves 4,635 cu.yd. excav., $0.85, 22,077 sq.yd. concrete, $2.42. Total cost $57,792. Noted June 30.

★**Mich., St. Johns**—State Highway Dept. at office Bd. Rd. Comrs. Clinton Co. let contract grading and draining State Trunk Line Rd. 14-33, 5.753 mi. Sect. B, to Kimmel, Hochle & Co., Jackson, $28,476; 4.64 mi. Sect. C, to Steers & Shumway, Kalamazoo, $20,879; 5.593 mi. Sect. D, to Petersen & Allen, Midland, $15,784.

★**Ill., Centralia**—City let contract grading and surfacing in Melrose Paving Dist., 40 ft. wide, asphalt, to Concord Constr. Co., East St. Louis, $96,906. Noted July 14.

★**Ill., Danville**—City let contract paving 17,500 sq.yd. Vermillion St., asphalt, to J. W. Bushnell, Peoria, $52,500.

★**Ill., Robinson**—City let contract paving various streets, brick on concrete base, to Barnes & Verley, Effingham, $29,365.

★**Wis., Oshkosh**—Winnebago Co. State Rd. and Bridge Comn. let contract surfacing 1.59 mi. Oshkosh-Winneconne Rd., to Lampert Constr. Co., Oshkosh, $40,480; 3,937 lin.ft. Waverly-Bench-Menosha Rd., to Gruenke Bros., Appleton, $17,373. Noted July 7.

★**Wis., West Allis**—City let contract rein.-con. paving 48th, 53d, 61st (sections), 66th and 67th Aves., to Milwaukee Genl. Constr. Co., 857 8th Ave., Milwaukee. Noted July 21.

★**Ia., Decorah**—Winneshiek Co. let contracts grading 14.02 mi. Federal Aid Project 98, Sects A and B, to W. R. Shipman Constr Co., Sioux City, 142,708 cu.yd. earth excav., $0.43 per cu.yd.; 10,513 cu.yd. solid rock, $2; 6,269 cu.yd. loose rock, $1.20; to North Iowa Brick & Tile Co., Mason City, furnishing 46,468 lin.ft. 6 in. tile, $0.061 per lin.ft., 580 lin ft. 12 in. tile, $0.211; to Mankato Constr. Co., Mankato, Minn., installing tile, 6 in. $0.091 12 in., $0.12.

★**Ia., Kenwood Park**—City let contract paving 1st Ave., 3 in. vertical fibre brick on 5 in. concrete base, to P. P. Smith, 1600 Washington Ave., Cedar Rapids, $4.38 per sq.yd., total $46,790; curbing, guttering and paving with concrete, 1st St., to Hahn Constr. Co., 106 2d Ave., Cedar Rapids, $2.86 per sq.yd., total $17,000. Noted June 9.

★**Ia., Sac City**—Sac Co. let contract graveling roads in Dist. 7, to Chrissy Bros., Storm Lake, $35,384; Dist. 8, to E. Nelson, Lake View, $45,670. Noted June 23.

Minnesota—State Highway Comn., 920 Guardian Life Bldg., St. Paul, received bids July 20, improving 4 mi. State Project 7-27, between Lewiston and Stockton, Federal Aid Project 96, Winona Co., from Siems, Helmers & Schaffner, 514 Guardian Life Bldg., St. Paul, $60,027, Cramer Constr. Co., 503 Pioneer Bldg., St. Paul, $62,964, Campbell Constr. Co., 3050 Hannepin Ave., Minneapolis, $63,141; 10 mi. State Project 9-22, from Fairmont to east Martin Co. line, Federal Aid Project 228, Martin Co., from C. K. McNamara, Bristol, S. D., $37,331, Hoyt Constr. Co., Fairmont, $41,754, Nelson, Fulton & Nelson, Plymouth Bldg., Minneapolis, $41,858; 23.4 mi. State Project 9-23, Federal Aid Project 224, Jackson and Nobles Counties, from G. W. Humphrey, 512 South State St., Aberdeen, S. D., $82,165, J. J. and M. S. Mergens, Globe Bldg., Minneapolis, $92,015, Nelson, Fulton & Nelson, Plymouth Bldg., Minneapolis, $94,622; 25 mi. State Project 9-24, between Blue Earth and Banks, Faribault Co., from Cramer Constr. Co., 503 Pioneer Bldg., St. Paul, $67,972, Reader & Gellman Trucking Co., 209 Kasota Bldg., Minneapolis, $71,397, S. J. Peterson, 300 West Lake St., Minneapolis, $73,014; State Project 10-34, between Howard Lake and Delano, Federal Aid Project 30, Wright Co., from Dobbelman & Rasmussen, 4232 Colfax Ave., S., Minneapolis, $34,141, J. L. Mowry, 2342 Bourne Ave., St. Paul, $34,880, S. J. Peterson, 300 West Lake St., Minneapolis, $37,747, tile on above project from J. Jorgensen, Estherville, Ia., at $4,332; grading and building culverts on 8 mi. State Project 54-22, near Herman, Federal Aid Project 225, Grant Co., grading from Reierson & Nohre, Thief River Falls, $17,916, C. K. NcNamara, Bristol, S. D., $21,575, Nelson, Fulton & Nelson, Plymouth Bldg., Minneapolis, $21, 705, culverts, from Western Bros., Herman, $5,250, Morris Constr. Co., Morris, $5,935. Noted July 7.

★**Minn., St. James**—City let contract paving 12 blocks various streets, cement, to Johnson, Drake & Piper, 912 Plymouth Bldg., Minneapolis, $3.10 per sq.yd. Noted June 16.

Minn., St. Paul—City received bids repaving with sheet asphalt West 7th St. from Seven Corners to Tuscarora Ave., from Fielding & Shepley, 216 West University Ave., $63,900; White Constr. Co., 205 Dakota Bldg., $84,000. Noted July 14.

★**Kan., Manhattan**—City let contract paving various streets, involving 3,000 yd. vertical fiber brick 670 sq.yd. plain concrete, 1,200 lin.ft. combined curbing and guttering, 1,000 cu.yd. excav., to M. R. Amerman, Wichita, $240,591. Noted Apr. 28.

★**Mo., Genevieve**—St. Genevieve Co. let contract grading and draining various roads, to S. P. Reynolds, Caruthersville. $26,348.

★**Mo., Marysville**—Nodaway Co. let contract grading and draining Project 20.33, to G. W. Korrell, Savannah, $29,102. Noted July 7.

★**Tex., Brenham**—Washington Co. let contract clearing, grubbing, grading and draining 16.81 mi. Austin-Huston Highway 20, from here to Fayette Co. line and 14.14 mi. Highway 20, from here to Waller Co. line, to Smith Bros., Crockett, $447,651 and $361,845 respectively. Noted July 21.

Tex., Canyon City—City received bids grading, paving and draining Houston, Evelyn, West and East 1st Streets, involving 8,915 sq.yd. 3 in. vertical fibre on 5 in. concrete base, etc., from Panhandle Constr. Co., Lubbock, $40,026; Jordan Constr. Co., Plainview, $40,585; O. E. Willmering, Amarillo, $40,976. Noted June 30.

★**Tex., McKinney**—Collin Co. let contracts grading and draining 11.83 mi. roads in Frisco and Blue Ridge Dists, work involving 76,215 cu.yd. borrow excav., 46.13 cu.yd. Class A and 169.5 cu.yd. Class B concrete, 6,948 lb. reinforcing steel, 3,240 cu.yd. excav., etc., to Hunn, Hallman & Mayo Bros., McKinney, $25,974, including 10% for engineering and contingencies; clearing, grubbing and draining 15.03 mi. Rd. Contr. 17, Plano Dist. 29, involving 88,550 cu.yd. borrow embankment, 69.5 cu.yd. Class A and 230.4 cu.yd. Class B concrete, 735 cu.yd. earth and 575 cu.yd. loose rock excav., 9,854 lb. reinforcing steel, etc., to Hunn, May Bros. & Rainey, McKinney, $24,018. Noted June 30.

★**Tex., Wichita Falls**—Wichita Co. let contract paving with concrete 2.84 mi. Iowa Park Rd., and 3.06 mi. Electra-Vernon Rd., 18 ft. wide, to C. E. Zimmerman, Wichita Falls. About $91,000 and $34,232 respectively.

★**Colorado**—State Highway Comn., Denver, let contracts grading and draining 1.05 mi. Ouray-Silverton Rd., Federal Aid Project 102, Fremont Co., to L. M. Spencer, 4810 West 38th Ave., Denver, $28,629; 2.135 mi. San Louis-Ft. Garland Rd., Federal Aid Project 180, Costello Co., to C. Carlson, San Acacio, $10,571; 5.097 mi. Buena Vista Divide, Federal Aid Project 54, Chaffee Co., to Gordon Constr. Co., Barclay Bldg., Denver, $74,816; gravel surfacing 8.78 mi. Cheyenne Wells North Rd., Federal Aid Project 51, Cheyenne Co., to Morrison & Crossen, Sterling, $21,675; 3.2 mi. Sapinero-Gunninson Rd., Federal Aid Project 172, Gunninson Co., to Girardet & Hotchkiss, Delta, $33,828; concrete paving 4.772 mi. Denver-Ft. Lupton Rd., Federal Aid Project 148, Adams and Weld Counties, to A. Dobie, Sterling, $135,132; 0.806 mi. Grand Junction-Fruita Rd., Federal Aid Project 184, Mesa Co., to Rogers Bros., Florence, $29,769; 2.078 mi. road between Greeley and La Salle, Federal Aid Project 146, Weld Co., to H. R. Phillips, 2605 East 14th Ave., Denver. $66.337; sandclay sur-

Streets and Roads (Continued)

facing 9.875 mi. Limon-Genoa Rd., Federal Aid Project 111, Lincoln Co., to E. Lindsey, 1655 Market St., Denver, $43,796; 3.38 mi. Limon-Mattison Rd., Federal Aid 127, Lincoln Co., to Pickering Bros. Constr. Co., Salt Lake City, Utah, $24,767; 3,296 mi. Colorado Springs-Florence Rd., Federal Aid Project 94, El Paso, to E. Honnen, Colorado Springs, $28,123; shale surfacing 2.698 mi. Rible-Meeker Rd., Federal Aid Project 187, Rio Blanco Co., to H. Shore, Steamboat Springs, $18,466. Noted July 7.

★Wash., Seattle—King Co. let contract paving 1⅛ mi. Kent-Black Diamond Highway, involving 15,800 sq.yd. concrete, to Yakima Paving Co., Yakima. About $38,000.

★Wash., Seattle—City let contract grading East 40th St., et al., involving 900 lin. ft. concrete curbing and 180,000 cu.yd. earth excav., to J. L. Smith, Pioneer Bldg., $27,807. Noted July 21.

Wash., Seattle—City received bid July 8, grading and paving 15th Ave., N. et.al., involving 74,400 sq.yd. 6-7 in. concrete and 20,600 cu.yd. earth excav., from Fiorito Bros., New York Blk., $223,463. About bid rejected and new bids to be called.

California—State Highway Comn., 515 Forum Bldg., Sacramento, received bids July 18 paving (1) 10.34 mi. state highway between Upton and south boundary, Siskiyou Co., involving (a) 13,442 cu.yd. Class A Portland cement concrete or alternate (b) 33,750 ton broken stone (c) 487 ton asphalt Grade E, (2) 15.97 mi. between Cloverdale and Healdsburg, Sonoma Co., (a) 60,000 cu.yd. excav., (b) 1,670 cu.yd. Class A Portland cement concrete (c) 23,500 cu.-yd. Class A Portland cement concrete, from H. J. Kaiser, 2466 4th Ave., Seattle, Wash., (1a) $13.95 (1b) $5.90 (1c) $3.50 total on rein.-con. base $187,516, on bituminized macadam base $200,830, (2a) $1 (2b) $15 (2c) $9, total $299,938; Healy-Tibbits Constr. Co., 9 Main St., San Francisco, (1b) $5.89 (1c) $17 total bituminized macadam base, $207,067, (2a) $1,165 (2b) $22.30 (2c) $9.44 total $334,122; R. C. Storrie & Co., Crocker Bldg., San Francisco, (1a) $15 (1b) $5.50 (1c) $20 total on rein.-con. base $201,620 on bituminized macadam base $195,365; A. J. Fairbanks, Willits, (2a) $1.20 (2b) $27.50 (2c) $9 total $333,557. Noted July 7.

★Cal., San Diego—San Diego Co. let contract paving Mission Rd. 1-B, 5 in. concrete, to G. R. Daley, McNeece Bldg., $92,737.

★Ont., St. Marys—Town let contract building concrete pavements on Queen St., to Curran & Briggs, St. Marys. About $185,000.

★Ont., York—Twp. let contracts to Archibald Constr. Co., 122 Delaware Ave., Toronto, building 5,200 sq.yd. concrete sidewalks on Forest Hill Rd., Mayfair Ave., and Strathcona Blvd., $16,000; E. G. Law, 107 Hillsdale Ave., Toronto, St. Leonards Ave., macadam, $1,400; Britnell Contg. Co., Baxter St., Toronto, Delevan St., macadam, $10,000; Kilmer & Barber, 10 Adelaide St., Toronto, paving 5,100 sq.yd. Forest Hill Rd., asphalt on concrete base, $25,000.

Industrial Works

PROPOSED WORK

Me., Greenville—Great Northern Paper Co., Exch. Bldg., Bangor, having plans prepared by Crowell & Lancaster, archts., Exch. Bldg., Bangor, for large 2 story, rein.-con. repair shop.

Me., West Pownal—State School for Feeble Minded receives bids Aug. 1 building 1 story, 45 x 73 ft. brick and concrete central heating plant. About $70,000. S. E. Vosburgh, supt. R. D. Kimball Co., 6 Beacon St., Boston, engrs.

Mass., Malden (Boston P. O.)—Potter Drug & Chemical Corp. having plans prepared by Lawrence & Wambolt, archts., 6 Beacon St., Boston, for 2 story, 50 x 85 ft. brick factory, concrete flooring. About $40,000.

Mass., Springfield—City plans to build 2 story, brick and concrete garage and repair shop, on Summer St. About $75,000. F. H. Clark, city engr.

Mass., Springfield—O. P. Thompson, 145 State St., does not plan to build 8 story, 100 x 190 ft. rein.-con. garage, as stated in our issue of July 14.

Conn., Thompsonville—Bigelow-Hartford Carpet Co., 58 Main St., plans to construct large brick, steel and rein.-con. plant, on North School, Tariff and West Sts. Architect not announced.

Md., Baltimore—M. L. Himmel & Son, 107 North Frederick St., soon receive bids building 5 and 7 story, 100 x 400 ft. factory, on Frederick and Warwick Aves. About $150,000. O. G. Simonson, Maryland Casualty Bldg., archt.

Pa., Altoona—J. Kazmaier, Germania Brewery, 1808 9th Ave., having plans prepared by Miller & Rider, archts., 1510 18th St., for 2 story, 50 x 60 ft. and 80 x 80 ft., ice plant, brick, on 9th Ave. About $75,000.

Pa., Phila.—T. F. Miller, archt., 1012 Walnut St., receives bids within 3 weeks building 3 story, concrete, brick and steel bakery and power plant, for Logan Baking Co., c/o architect.

Pa., Williamsport—C. A. Reed & Co., Laurel and Willow Sts., purchased 10 acre tract east of here and plans to build factory.

N. C., Dunn—See "Miscellaneous."

O., Cleveland—Y. Huml, Benham Ave. and East 131st. St., had plans prepared by F. Hronek, archt., 3584 East 131st St., for 2 story, 50 x 140 ft., brick and steel garage, brick foundation, on East 131st St. and Bartlet Ave. About $40,000.

O., Kenmore—Palmer Match Co., recently incorporated, plans to build match factory. About $500,000. C. H. Palmer, official.

Wis., Milwaukee—H. Kaufman, 1218 Fond du Lac Ave., opens bids about Aug. 4, building 2 story, 40 x 60 ft. brick and concrete garage, rein.-con. flooring, concrete foundation, on Fond du Lac St. About $40,000. W. G. Memmler, 1020 21st St., archt.

Wis., Milwaukee—Thoringer & Bruecker, archts., 3328 State St., opens bids about Aug. 3, building 1 story, 60 x 120 ft., brick, concrete and steel garage and repair shop, rein.-con. flooring, concrete foundation, on West Side. About $50,000. Owners name withheld.

Wis., Neenah—Valley Paper Mills, East Wisconsin Ave., having plans prepared by E. A. Wettengel, archt., 578 Pierce Ave., Appleton, for 2 story, 80 x 555 ft. rein.-con., brick and steel mill, rein.-con. flooring, concrete foundation. Noted June 23.

Minn., Minneapolis—Haas Plumbing Co., 723 6th Ave., N., having plans prepared by Liebenberg, Kaplan & Martin, archts., 617 McKnight Bldg., for 5 story, 117 x 120 x 168 ft., rein.-con., brick and tile factory on 7th St. N. and Bradford Ave. About $150,000.

Mo., Clarence—A. Burnett, c/o Clarence Auto Co., plans to build 1 story, brick and steel auto repair shop. About $45,000. Architect not selected.

Mo., Lutesville—C. Alexander plans to build electric light plant. About $75,000. Private plans.

Tex., Dallas—E. D. Knight, 3617 Cedar Springs St., soon let contract building 5 story, 116 x 153 ft. rein.-con. warehouse. F. J. Woerner, Sumpter Bldg., archt.

Okla., Miami—F. Statton plans to build 2 story, brick garage on Main St. About $50,000. Architect not selected.

Ont., Chatham—Lorne Tractors Ltd. having plans prepared and receives bids about Aug. 15, building addition to plant. About $150,000. Prices wanted on all materials. W. A. Greene, c/o owner, engr.

Ont., London—London Dist. Milk Producers, R.R. 2, Wilton Grove, plans to build cooperative dairy, in East London. About $250,000. J. C. Nichol, pres. Private plans.

BIDS DESIRED

Mass., Shirley—Until Aug. 2, by Densmore & Le Clear, engrs., 88 Broad St., Boston, building 1 and 2 story, 35 x 140 ft. brick kitchen and laundry, for State Industrial School, here. About $65,000.

N. Y., Ithaca—Until Aug. 18, by C. D. Bostwick, comptroller, Cornell University, constructing dairy industry building. L. F. Pilcher, Capitol, Albany, state archt.; advertised in this issue.

Pa., Pittsburgh—Oberndorf Mfg. Co., 7509 Thomas Blvd., receiving bids building 1 story, 160 x 200 ft. concrete, brick and steel factory on Thomas Blvd. and Richland St. About $90,000. W. G. Wilkens Co., Westinghouse Bldg., archts.

O., Cleveland—Bryant Automobile Co., 3191 West 25th St., receiving bids building 3 story, 80 x 180 ft., brick, steel and concrete garage, rein.-con. flooring, brick and concrete foundation, on West 25th St. near Clark Ave. About $100,000. P. Matzinger, Caxton Bldg., archt. Noted Jan. 27.

O., Cleveland—A. Horwitz, Society for Savings Bldg., receiving bids building 1 story, 90 x 112 ft., brick and steel garage, brick foundation, on East 70th St. and Carnegie Ave. About $40,000. A. F. Janowitz, Permanent Bldg., archt. Noted Jan. 13.

O., Cleveland—Until Aug. 3, by J. Spang Baking Co., 2711 Barber Ave., building 2 and 3 story, 78 x 113 ft., brick and steel factory, brick foundation. About $100,000. E. Huberty, 8017 Whitehorn Ave., archt. Noted Aug. 19.

Ill., Herrin—Until Aug. 2, by Illinois Central R.R. care of C. H. Markham, pres., 135 East 11th St., Chicago, building 1 story, 60 x 200 ft. brick and steel engine house and machine shop, here. About $60,000. D. T. McLaughlin, 109-12th St., Chicago, archt. Noted July 14.

N. D., Dickinson—Until Aug. 9, by State Bd. of Administration, c/o C. Liessman, Secy., Bismarck, building power plant at Normal School, here. About $40,000. Keith & Kurke, Fargo, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Portland—S. J. Shatz, Bracket St., let contract building 2 story, 50 x 126 ft. brick garage, to F. W. Cunningham & Son, Congress St. About $60,000.

★Mass., Brighton—(Boston P. O.)—F. Diliberto, 34 School St., Boston, let contract building 1 story, 85 x 180 ft. and 40 x 40 ft. garage and repair shop, brick, concrete and steel, rein.-con. flooring, concrete foundation, on Brighton Ave., here, to N. Hurwitz, 294 Washington St., Boston. About $80,000.

★Mass., Dorchester (Boston P. O.)—Berch & Cadigan, 130 Shawmut Ave., Boston, let contract building 1 story, rein.-con. and steel garage, rein.-con. flooring, concrete foundation, on Norfolk St., here, to N. Hurwitz, 294 Washington St., Boston. About $85,000.

★Mass., Hyde Park (Boston P. O.)—Tileston & Hollinsworth, 49 Federal St., Boston, let contract building brick and steel addition to factory, on River St., to Aberthaw Constr. Co., 27 School St., Boston. About $40,000.

★Mass., New Bedford—Sterling Roofing Co., Main St., let contract building 1 story, 75 x 150 ft. rein.-con. factory, to E. S. Butterfield Co., 88 Broad St., Boston. About $45,000.

★Mass., Springfield—H. Huck, 38 Hampden St., let contract building 3 story, 51 x 113 ft. brick and steel warehouse, concrete foundation, to J. G. Roy & Son Co., 21 Silver St. About $75,000.

★R. I., Providence—M. Silverman, 226 Public St., will build 1 story, brick, concrete and steel garage, rein.-con. flooring, concrete foundation on Broad St. About $40,000. Work will be done by day labor.

★R. I., Providence—Ward Baking Co., 461 Eddy St., let contract building 2 story, 50 x 115 ft. rein.-con. bakery addition, to O. D. Purington & Co., 626 Independent Trust Bldg. About $50,000. Noted Feb. 3.

★R. I., West Warwick—Pawtucket Valley Dyeing Co., Phenix let contract constructing 1 story, 50 x 900 ft. brick finishing building and dye house, concrete flooring, here, to H. Wales Lines Co., West Warwick. About $75,000.

★Conn., Ansonia—Ansonia O. & C. Co., 153 Main St., let contract building 2 story, 75 x 125 ft. rein.-con. factory, to Aberthaw Constr. Co., 27 School St., Boston. About $250,000. Noted June 30.

★Conn., East Hartford (Hartford P. O.)—S. A. Miner, 7 Spruce St., Hartford, let contract building 1 story, 100 x 150 ft. brick and concrete garage, rein.-con. flooring, concrete foundation, on Connecticut Blvd., here, to Austin Co., 217 Bway., New York City. About $65,000.

Conn., Hartford—Bd. Health and Charity Depts. received bids July 19, building 2 story, 43 x 63 ft. brick and concrete heating plant and laundry, two 68 x 204 ft. rein.-con. tunnels and one 25 x 65 ft. concrete coal bunker, on Holcomb St., from Garrity & Crowley, 847 Main St., $49,125; Bent-

Industrial Works (Continued)

Hartlett Co., 43 Ann St., $51,350; G. Cudemo, 327 Trumbull St., $51,500. Noted July 14.

★**Conn., Hartford**—Graphic Arts Co., 74 Union Pl., let contract building 3 story, 60 x 82 ft. printing plant, brick, rein.-con. and steel, rein.-con. flooring, concrete foundation, on High St., to Lawrence & Coe Constr. Co., 327 Trumbull St. About $75,000. Noted June 30.

★**Conn., Hartford**—L. H. Motors Co., 98 High St., let contract building 2 story, 32 x 90 ft. brick, concrete and steel garage, rein.-con. flooring, concrete foundation, to Lawrence & Coe Constr. Co., 327 Trumbull St.

★**Conn., New Haven**—United Illuminating Co., 84 Temple St., let contract building 2 story, 60 x 65 ft. brick and rein.-con. addition to power plant and constructing 2 rein.-con. coal bunkers, on Grand Ave., to Standard Constr. Co., 153 Court St.

★**N. Y., New York**—P. Lorillard Co., 119 West 40th St., let contract building 4 story, rein.-con. and steel factory, rein.-con. flooring, concrete foundation, to Turner Constr. Co., 244 Madison Ave. About $500,000. Noted July 7.

★**O., Cleveland**—H. C. Bishop & Co., archts. and engrs., Guardian Bldg., let contract to C. A. Carson Co., Euclid-71st St. Bldg., constructing 1 story, 40 x 75 ft., brick and steel power plant, brick foundation, at 3825 Cedar Ave., for Telling-Belle-Vernon Co., 3825 Cedar Ave. About $50,000. Noted July 14.

★**O., Lakewood** (Cleveland, P. O.)—City Ice & Fuel Co., Cadillac Bldg., let contract building 1 story, 34 x 129 ft., brick and steel plant, brick foundation, at 2266 Warren Rd., to Younger & Farmer, 1670 Crawford Rd. About $40,000.

★**O., Massillon**—Ladel Mfg. Co. let contract building 1 story, 90 x 300 ft., brick and steel factory, brick foundation, to Boldt Constr. Co., 5902 Euclid Ave., Cleveland. About $150,000.

★**Wis., Green Bay**—Investment Corp. let contract building 4 story, 100 x 200 ft. cold storage plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to L. M. Hansen Co., 113 West Walnut St. Cost between $75,000 and $100,000.

★**Wis., Lena**—J. W. Bassett will build 1 story, 60 x 120 ft. brick and steel garage, rein.-con. flooring, concrete foundation. About $40,000. Owner will build by day labor. Noted March 10.

★**Wis., Milwaukee**—Prime Mfg. Co., 97 Wisconsin St., let contract constructing 3 story, 42 x 50 ft., rein.-con. and tile storage and office building, rein.-con. flooring, concrete foundation, on Clinton St., to H. A. Kroening, 893 Layton Blvd. About $40,000.

★**Ia., Camp Dodge** (Herrold P. O.)—Pearse, Robinson & Sprague, archts. and engrs., 1024 Grand Ave., Des Moines, let contract to J. Benson Constr. Co., 422 V. N. B. Bldg., Des Moines, constructing 1 story, 110 x 324 ft. motor transport building, concrete and steel, for State, c/o L. G. Lasher, adjutant general, State House, Des Moines. About $47,950. Noted July 7.

★**Ia., Des Moines**—Iowa Corn Products Co. let contract building 4 story, 100 x 140 ft. factory and power plant, on 30th St., to Folwell Ahlskog Co., 332 South Michigan Ave., Chicago, cost plus percentage basis.

★**Minn., Minneapolis**—D. C. Thwing, 945 Andrus Bldg., let general contract constructing 2 story, 70 x 152 ft., rein.-con., brick and tile garage and sales building at 1315 LaSalle Ave., to H. N. Leighton Co., 127 South 10th St. About $60,000. Noted May 19.

★**Kan., Pittsburg**—Fabler Bros. let contract building 1 story, 92 x 94 ft. brick warehouse, rein.-con. flooring, concrete foundation, near Bway., to A. Messenger, Pittsburg. About $250,000.

Buildings

PROPOSED WORK

Mass., North Adams—School and Gymnasium—School Dept. rejected bids building 2 story, 90 x 127 ft. brick and steel, rein.-con. flooring, conrcete foundation, on State St. About $150,000. Project postponed for time being. Noted July 7.

Mass., Southbridge—High School—School Bd. Com. rejected bids building 2 story, 90 x 140 ft. brick and steel addition to Mary E. Wells School, on Pine St. About $200,000. Project postponed. Appleton & Stearns, 53 State St., Boston, archts. Noted June 9.

Mass., West Springfield (Springfield P. O. Bldg.)—Bank—West Springfield Trust Co. having plans prepared by C. A. Whitten, archt., 940 Massachusetts Ave., Cambridge, for 2 story, 64 x 80 ft. brick, steel and stone, rein.-con. flooring, concrete foundation, on Elm St.

Mass., Worcester—Church—First Unitarian Church, Main St., having plans prepared by J. D. Leland & Co., archts., 41 Mt. Vernon St., Boston, for brick, stone and steel. About $150,000.

Mass., Worcester—Club—B. P. O. E., 29 Elm St., plans to build 2 story fireproof addition to club. About $150,000. Architect not announced.

Conn., Bridgeport—School and Hall—St. Patrick's Roman Catholic Parish, 865 North Ave., having plans prepared by G. A. Zunner, archt., 182 High St., Hartford, for 3 story, 70 x 132 ft. brick, concrete and steel, on Gem Ave. About $150,000.

Conn., Greenwich—High School—Bldg. Com., 325 Greenwich Ave., having plans prepared by Guilbert Betelle, archts., 2 Lombard St., Newark, N. J., for 3 story, brick, concrete and steel, on Main St. About $1,000,000. G. E. Searn, chr.

Conn., Manchester—Church—South Methodist Church, 829 Main St., having preliminary plans prepared by A. E. Hill, archt., Westminster St., Providence, R. I., for 1 story, brick, stone and steel. About $150,000. G. E. Keith, chn. cm.

Conn., Middletown—Pavilions—Connecticut Hospital for Insane, South Farms St., plans to build two 2 story, brick and steel. About $150,000. Architect not selected.

Conn., New Haven—Museum—Peabody Museum, c/o Day & Klauder, archts., 925 Chestnut St., Philadelphia, Pa., having plans prepared for large 3 story, brick, marble, steel, stone and concrete, on Elm St.

Conn., New London — Business — F. H. and A. H. Chappell Co., 286 Bank St., having plans prepared by Biederbeck & Langdon, archts., Barrows Bldg., remodeling 4 story, 88 x 100 ft. concrete and steel, on Bank St. About $150,000.

Conn., Norwalk — Club—Norwalk Boys' Club Comn., 100 Washington St., plans to build 3 story, brick and concrete, on West Ave. J. H. Light, chn. Architect not selected.

N. Y., New York—Apartment—J. and S. Golding, c/o Rouse & Goldstone, archts. an engrs., 512 5th Ave., having plans prepared for 13 story, 100 x 300 ft., brick, steel and stone, concrete foundation, on 90th St. between Bway. and Amsterdam Ave. About $750,000.

N. Y., New York—Bank and Office—New York Exch., 107-111 Hanover Sq., having sketches made by D. Barber, archt. and engr., 101 Park Ave., for 23 story, 90 x 115 ft., brick, steel and stone, concrete foundation. About $2,250,000.

N. Y., New York—Office—Forty-Fifth and Forty-Sixth St. Corp., c/o Warren & Wetmore, archts., 16 East 47th St., having plans prepared for 9 story, brick, steel and stone, concrete foundation, at 17 East 45th St. About $250,000.

N. Y., New York—Apartment—M. Dreicer and M. Van Buren, c/o J. E. R. Carpenter, archts. and engrs., 681 5th Ave., had plans prepared for 9 story, brick, steel and stone, concrete foundation, on 95th St. near 5th Ave. About $350,000.

N. Y., New York—Office—Estate of E. Charles, 331 Madison Ave., had plans prepared by C. I. Berge, archt. and engr., 331 Madison Ave., for 6 story, 45 x 100 ft., brick, steel and stone, at 42 East 43rd St. About $150,000.

N. Y., New York—Office—Pershing Sq. Bldg. Corp., c/o J. Sloan, archt. and engr., 570 5th Ave., soon receives bids building 24 story, brick, steel and stone, at Pershing Sq., 42nd St. and Park Ave. About $5,000,000. Noted Mar. 17.

N. J., Belleville (Newark P. O.)—Bank and Office—Home Building & Loan Assn. having plans prepared by C. B. Jones, archt. and engr., 280 Bway., New York City, for 2 story, 24 x 24 ft. brick, steel and stone concrete foundation, on Washington Ave. About $150,000.

N. J., West Hoboken—Bank—Hudson Trust Co., 51 Newark St., Hoboken, having plans prepared by W. L. Stoddard, archt. and engr., 9 East 40th St., New York City, for 2 story, 100 x 150 ft., brick, steel and stone, concrete foundation, on Bergenline Ave. and Hackensack Plank Rd. About $150,000.

Pa., Mahanoy City—Bank—B. R. Stevens, archt., 1737 Filbert St., Phila., receives bids about Aug. 1, building 1 story, 25 x 125 ft. concrete, brick and steel, rock foundation, on Center and Main Sts., here, for Union Natl. Bank. About $150,000.

Pa., Phila.—Office—L. B. Rothchild, archt., 1225 Sansom St., receives bids about Aug. 1, building 10 story, 50 x 100 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 113-115 South Broad St., for Heyman & Bros., c/o architect.

Pa. Reading—Hospital—Reading Hospital, Front and Spring Sts., had plans prepared by E. A. Stevens, archt, 9 Park St., Boston, Mass., for 4 story, 32 x 74 ft. concrete, brick and steel, rein.-con. flooring concrete foundation, on Front and Mulberry Sts.

Del., Claymont—High School—Bd. Educ. had plans prepared by Coffin & Coffin, archts. and engrs., 52 25th Ave., New York City, for brick, steel and stone. About $300,000.

Md., Baltimore—Dormitories—John Hopkins University, University Parkway, having revised plans prepared by E. L. Palmer, archt., 1620 Munsey Bldg., 3 story, rein.-con. and steel, concrete foundations, at Homewood. Architect to take bids in fall. About $250,000. C. L. Reeder, Park Ave. and Saratoga St., engr.

Md., Baltimore—Hospital—South Baltimore General Hospital, 1213 Light St., having preliminary plans prepared by H. C. Jory, archt., 1408 Munsey Bldg., for 3 story addition, on Light St. near West St. Architect to take bids in September. About $250,000.

Md., Baltimore—Memorial—State Memorial Comn., Chamber of Commerce Bldg., plans to build memorial. About $900,000. W. B. Wood, 816 Connecticut Ave., Wash., D. C., advisory archt. Noted May 5.

Md., Baltimore—Theatre—Owner c/o T. White, Continental Bldg., having preliminary plans by T. W. Lamb, archt., 644-8th Ave., New York City, for 1 story, 85 x 121 ft., on Charles and Lafayette Sts. About $200,000.

Md., Frederick—Dormitory—Hood College opens bids about Aug. 1, building 4 story, on campus. About $220,160. Hamme & Whitman, City Bank Bldg., York, Pa., archts.

D. C. Wash.,—Monastery—G. L. Lovatt, archt., 430 Walnut St., Phila., opens bids about Aug. 15 building 2½ story 400 x400 ft. brick and steel, rock foundation, on Bethseda St., for Monastery of the Visitation. About $300,000.

W. Va., Charleston—Capitol—Capitol Comn. having sketches made by C. Gilbert, archt., 244 Madison Ave., New York City, for several buildings, brick, steel and stone. About $5,000,000. Noted Feb. 17.

W. Va., Elizabeth—High School—Bd. Educ. Wirt Co. plans to build high school, here. About $150,000.

W. Va., Elkhorn—High School—Bd. Educ. plans to build brick school. About $150,000. Architect not selected.

W. Va., Logan—Hospital—Guyan Valley Hospital Co. plans to build hospital. About $150,000. Architect not selected.

N. C., Gastonia—School—City voted $550,000 bonds to build school. R. G. Cheny, mayor. Noted June 23.

N. C., Raleigh—Institute—Bd. Directors soon reecives bids erecting several brick buildings, at State School for Blind. About $325,000. J. A. Salter, Commercial Bank Bldg., archt.

Fla., Orlando—Courthouse—Orange Co. voted bonds to build 3 story addition. Cost between $150,000 and $175,000. Architect not selected.

Fla., Orlando—Hotel—J. Fange and associates having plans prepared by M. S. King, archt., Orlando, for 10 story, 100 x 150 ft., rein.-con., brick, tile and steel, rein.-con. flooring. About $1,000,000.

O., Alliance — Arcade — Arch and Main Arcade Co., recently incorporated, plans to build 3 story, on Arch and Prospect Sts. About $175,000. Address J. S. Spring, officer.

O., Alliance—Commercial and Club—F. O. E. 224, c/o J. J. Bengoet, having plans prepared by Albrecht-Wilhelm & Kelly, archts., 1836 Euclid Ave., Cleveland, for 3 story, 46 x 110 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About 175,000.

O., Bedford—School—Bd. Educ., Chagrin Falls, having plans prepared by C. W. Bates, archt., 604 Marshall Bldg., Cleveland,

Buildings (Continued)

for 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, in Orange Twp. About $200,000.

O., Cleveland—Apartment and Commercial—F. Riley and G. Paul, 611 Fidelity Mortgage Bldg., had plans prepared by J. F. Steffens, archt., 611 Fidelity Mortgage Bldg., for 4 story, 48 x 106 ft., brick, concrete and steel, on East 84th St. and Euclid Ave. About $200,000.

O., Cleveland—Commercial — Frankel Light Co., 5016 Woodland Ave., having plans prepared by A. Sogg, archt., 319 Hippodrome Bldg., for 4 story, 66 x 154 ft., brick and steel, brick foundation, on St. Clair Ave. near West 6th St. About $150,000.

O., Cleveland—Commercial—On Leon Tong Chinese Merchants Assn., c/o A. King, 1307 Ontario St., plans to build 3 story 137 x 150 ft., brick and terra cotta, brick foundation, on Oregon Ave. near East 21st St. About $150,000. Architect not selected.

O., Cleveland—Commercial—Schwegler & Co., 6501 Euclid Ave., plans to build 4 story, 60 x 160 ft., brick, steel and concrete, at 7023 Euclid Ave. About $200,000. Architect not selected.

O., Cleveland — Commercial — Templer Realty Co., Natl. City Bldg., plans to build 3 story, 115 x 200 ft., brick and steel, brick foundation, on East 69th St. and Euclid Ave. About $175,000. M. Marmorstein, pres. Architect's name withheld.

O., Cleveland—Office—C. Townes and H. A. Stahl, Hicox Bldg., having plans prepared by G. Rider & Co., archts., Century Bldg., for 10 story, brick, steel and concrete, on East 18th St. and Euclid Ave. About $1,000,000.

O., Cleveland — Theatre — Columbia Amusement Co., c/o J. Drew, 709 Euclid Ave., having plans prepared by T. Lamb, archt., 1323 Euclid Ave., for 1 story, brick, steel and concrete, on East 18th St. and Euclid Ave. About $250,000.

O., Salem—Lodge—Masonic Temple Bldg. Co. having plans prepared by Thayer & Johnson, archts., 5716 Euclid Ave., Cleveland, for 3 story, 50 x 125 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $150,000.

O., Westerville—High School—City election Aug. 9, to vote on $205,000 bonds to purchase site and construct new high school, also $20,000 bonds to repair present building. H. R. Jones, pres. Bd. Educ. Architect not selected.

Mich., Alma—Church—Methodist Church, care of M. W. Duffy, plans to build 2 story, concrete, brick and stone. About $150,000. Architect not selected.

Mich., Detroit—Apartment—Davis Investment Co., c/o W. C. Morris, archt., 2741 Blaine Ave., having plans prepared for 6 story, 60 x 100 ft. brick, steel and concrete, on Cass and West Kirby Aves. About $200,000.

Mich., Flint—High School—Bd. Educ. having revised plans prepared by Malcomson, Higginbotham & Palmer, archts., 405 Moffat Bldg., Detroit, for 2 story, 200 x 260 ft., rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation, on Oak Grove site. About $1,000,000.

Mich., Royal Oak — Schools — Bd. Educ. Dist. 7, Berkley Ave., had plans prepared by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, Detroit, for School No. 2, two story, rein.-con., brick and steel, concrete foundation, in Distr. 7, also addition to Berkley Ave. School. About $150,000.

Ill., Chicago—Store and Office—A. Levinson, 3250 Lawrence Ave., had plans prepared by Levy & Klein, archts., 111 West Washington St., for 3 story, 80 x 125 ft. mill construction, concrete foundation, on Spaulding and Lawrence Aves. About $150,000.

Ill., Evanston — Bank — Central Savings Bank, c/o Mitchell Bros., 5 North La Salle St., Chicago, having revised plans prepared by Lowe & Bollenbacker, archts. 108 South La Salle St., Chicago, for 1 story, 50 x 120 ft., rein.-con., brick and stone, rein.-con. flooring, concrete foundation, here. About $150,000.

Ill., Jacksonville—Bank and Office—Farrell State Bank soon lets contract building brick, steel and stone, concrete foundation. About $150,000. Hoggson Bros., 485 5th Ave., New York City, engrs. and archts.

Ill., Joliet — Convent — St. Francis Academy, c/o E. P. Rother, archt., 2507 Cullom St., Chicago, having plans prepared for 4 story, 88 x 200 ft. administration building, 1 story domestic science building and 1 story, 40 x 128 ft. power house, all brick, rein.-con., stone and terra cotta.

Ill., Martinsville — High School — Bd. Educ., having plans prepared by Johnson, Miller & Miller, archts., 105 South 7th St., Terre Haute, Ind., for 2 story, brick and steel, rein.-con. flooring. About $150,000.

Ill., Tuscola—High School—Bd. Educ. having plans prepared by Liesa & Ludwick, archts., Temple Bldg., Danville, for 2 story, 70 x 225 ft., rein.-con., brick and steel. About $225,000.

Ill., Waukegan—Hospital—R. E. Schmidt, archt., 104 West Michigan Ave., Chicago, soon receives bids building 2 story, brick, rein.-con. and steel, for Victory Memorial Hospital, c/o Judge Edwards. About $300,000. Noted Nov. 25.

Ill., Wheaton—Church—St. Michaels Church having plans prepared by E. P. Rother, archt., 2507 Cullom Ave., Chicago, for 2 story, 68 x 149 ft., brick, stone and steel. About $150,000.

Wis., Madison—Church—First Methodist Episcopal Church plans to build 1 story, probably ordinary construction with stone exterior. About $300,000. W. C. Jones, 19 South LaSalle St., Chicago, archt.

Wis., Madison — Community House and Chapel—Amer. Luthern Assn., 356 11th Ave., Milwaukee, plans to build brick and concrete, rein.-con flooring, concrete foundation, here. About $150,000. W. Groebner, pres. Architect not selected.

Wis., Milwaukee—Club House and Store—North Ave. Development Co., 3402 North Ave., having plans prepared by Backes & Pfaller, archts., 216 West Water St., for 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation. About $150,000. Noted April 14.

Wis., Milwaukee—Dental—Kirchhoff & Rose, archts., 221 Grand Ave., opens bids about Aug. 1, building 4 story, 80 x 98 x 179 ft., rein.-con., brick and tile, rein.-con. flooring, concrete foundation, on 16th and Grand Sts., for Marquette University, 1115 Grand Ave.

Wis., Wauwatosa—Sanitarium—Brust & Philipp, archts., 405 Bway., Milwaukee, opens bids about Aug. 8, building 3 story, 92 x 200 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on West Main St., here, for Milwaukee Private Sanitarium. About $150,000.

Ia., Clarinda—High School—Bd. of Educ., c/o H. S. Stephens, secy., plans to build rein.-con., brick, tile and stone. About $225,000. Keffer & Jones, 204 Masonic Temple, Des Moines, archts. Noted June 30.

Ia., Des Moines—Office—G. Plak, c/o Central Life Assurance Co., Central Life Bldg., having plans prepared by Boyd & Moore, archts., 1020 Grand Ave., for 10 story, 118 x 135 ft., rein.-con., brick, tile and stone, on 5th St. and Grand Ave. About $375,000.

Ia., Fairfield—Church—Methodist Church Congregation, c/o C. L. Tennant, having plans prepared by G. A. Carpenter, archt., Liegett Bldg., for 3 story, brick, steel and concrete. About $150,000.

Minn., Minneapolis—Lodge, Office and Store—Plymouth Lodge 160 A. F. & A. M., 3rd St. and West Bway., having plans prepared by Downs & Eads, archts., 804 Phoenix Bldg., for 3 story, 105 x 110 ft., rein.-con., brick and tile on 20th and Emerson Aves. N. About $150,000.

Minn., Minneapolis—Store and Office—Thorpe Bros., 206 Andrus Bldg., having plans prepared by Kees & Colburn, archts., 246 Plymouth Bldg., remodel 6 story, rein.-con., brick and tile, at 519 Marquette Ave. About $150,000.

Kan., Hiawatha—Church — Christian Church, c/o T. V. Hubbell, pastor, plans to build brick, stone and steel. About $150,000. Architect not selected.

Kan., Kansas City—Memorial—City, c/o H. Payne, plans to build memorial. Bonds for $500,000 voted for project. Rose & Peterson, Barker Bldg., archts.

Kan., Kansas City—Office—B. P. O. E. No. 440, c/o F. Railsback, having plans prepared by J. G. Braecklien, archt., 1000 Qunidaro Blvd., Kansas City, for 7 story, 65 x 90 ft., brick, stone and rein.-con., at 905 North 7th St. About $200,000.

Kan., Manhattan—Economics and Cafeteria—State, c/o J. A. Kimball, Topeka, having plans prepared by R. Gamble, archt., 1415 Filmore St., Topeka, for 2 story, 82 x 132 ft., rein.-con., brick and stone, here. About $150,000.

Kan., Osawatomie—Hospital—State, c/o J. A. Kimball, Topeka, having plans prepared by R. Gamble, archt., 1415 Filmore St., Topeka, for 2 story, rein.-con., brick and stone, here. About $150,000.

N. D., Calvin—School—Bd. Educ. having plans prepared by Shannon, Boyd & Boyd, archts., Jamestown, for 2 story, rein.-con., brick, stone and tile. About $150,000. J. L. Parrisn, supt. Noted Jan. 13.

Mo., Boliver—Dormitory—Southern Baptist College having plans prepared by T. E. Davis, archt., 20½ Spruce St., Ashville, N. J., for 3 story, 54 x 126 ft. brick, steel and concrete. About $150,000.

Mo., Springfield—Church—Grace Methodist Episcopal Church, c/o W. R. McCormick, 425 Pearl St., having plans prepared by Heckenlively & Mark, archts., Lander Bldg., for 2 story, 100 x 153 ft. brick and stone. About $150,000. Noted Dec. 9.

Tex., Cisco—High School—City had plans prepared by Robertson & Griesenbeck, archts., South West Life Bldg., Dallas, for 3 story, rein.-con. About $200,000.

Okla., Muskogee—Church—First Baptist Church having plans prepared by R. H. Hunt & Co., archts., Southwest Life Bldg., Dallas, Tex., for rein.-con., brick, stone and steel. About $180,000.

Ont., Port Stanley—Hotel—Erie Amusement Co., St. Thomas, plans to build hotel on Fraser Heights, here. About $200,000. Private plans.

BIDS DESIRED

Me., Kennebunk—High School—Until Aug. 1, by town, building 2 story, 63 x 98 ft., brick and stone, concrete foundation. About $150,000. Hutchins & French, 8 Winter St., Boston, archts.

Mass., Boston—Hospital—Until Aug. 5, by city, building 4 story, 43 x 142 ft. rein.-con., brick and stone addition to Thorndike Memorial Hospital, on Concord St. About $350,000.

Mass., Newton (Boston P. O.)—Theatre—Until July 30, by Desmond & Lord, archts., 15 Beacon St., Boston, building 2 story, 68 x 148 ft. brick and steel, concrete foundation, on Washington St., for Newton Theatre, Inc., 415 Center St. About $175,000.

Conn., Hartford—School and Hall—Until Aug. 5, by Sts. Cyril and Methodist Church, 69 Governor St., building 2 story, 65 x 150 ft. rein.-con. and brick, rein.-con. flooring, concrete foundation, on Groton St. About $200,000. H. A. Ludorf, Mutual Bldg., New Britain, archt. Noted June 16.

Conn., West Haven (New Haven P. O.)—Store and Theatre—Brown & Van Beren, archts., 185 Church St., New Haven, receiving bids building 1 and 2 story, 100 x 170 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation, on Campbell Ave. and New St., here, for H. L. Reader, 27 George St., New Haven. About $150,000.

N. Y., Brooklyn—Apartment—Kessan Realty Co., c/o McCarthy & Kelley, archts. and engrs., 16 Court St., will build 6 story 50 x 100 ft., brick, steel and stone, concrete foundation, on St. Johns Pl. About $175,000. J. Horowitz, pres. Work will be done by separate contracts.

N. Y., Long Island City—High School—Until Aug. 5, by C. B. J. Snyder, supt. School Bldgs., 2800 Municipal Bldg., New York City, completing and finishing the general construction of additions to and alterations in Bryant High School on northerly side of Wilbur Ave. between Academy and Radde Sts.

N. Y., New York—Apartment—Tampa Constr. Co., 370 East 140th St., will build 5 story, 90 x 90 ft., brick, steel and stone, concrete foundation, on Briggs Ave. About $150,000. Work will be done by separate contracts. D. S. Lang, 110 West 34th St., archt. and engr.

N. Y., New York—Apartment—Hull Ave. Building Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, brick, steel and stone, concrete foundation, on 199th St. and Grand Cncourse, Bronx. About $175,000. Work will be done by separate contracts.

N. J., Atlantic City—Bank and Office—Until Aug. 1, by Chelsea Natl. Bank, building 4, 60 x 100 ft. concrete, steel and brick, rein.-con. flooring, concrete foundation, on Atlantic Ave. About $200,000. H. A. Stout, Guarantee Trust Bldg., archt. Noted June 16.

Pa., Meadville—High School—Until Aug. 22, by Bd. Educ. building 2 story, 200 x 200 ft., brick and steel, rein.-con. flooring. About $350,000. W. G. Eckles, New Castle, archt.

Pa., Phila.—Office—H. C. Hodgens, archt., 130 South 15th St., receiving bids building 7 story, 94 x 118 ft. rein.-con., brick and steel, rein.-con. flooring, concrete

Buildings (Continued)

foundation, on Juniper and Walnut Sts., for Walnut St. Savings & Trust Co., c/o architect.

Va., Norfolk—School—Until Aug. 9, by City School Bd., Bankers Trust Bldg., rebuilding John Marshall School. E. L. Myers, chn; advertised in this issue.

Ga., Augusta—Until Aug. 12, by Murphy & Dana, archts. and engrs., 331 Madison Ave., New York City, constructing 4 story, brick, steel and stone building for Central Y. M. C. A. About $300,000.

O., Alliance—Hospital—Until Aug. 15, by city, building 3 wings, brick, steel and concrete. About $200,000. Mills & Millspaugh Co., 67 East Long St., Columbus, archts. Noted Jan. 13.

O., Cleveland — Commercial — Standard Film Serv. Co., Sloan Bldg., receiving bids building 3 story, 40 x 145 ft., rein.-con., steel and brick, rein.-con. flooring, brick and concrete foundation, on East 21st St. and Payne Ave. About $150,000. S. H. White, Schofield Bldg., archt. Noted April 28.

O., Cleveland—School—Until Aug. 15, by Bd. Educ., East 6th St. and Rockwell Ave., building 2 story, rein.-con., brick and steel addition, rein.-con. flooring, brick and concrete foundation, on East 126th St. and Abell Ave. F. G. Hogen, dir. W. R. McCornack, East 6th St. and Rockwell Ave., archt.

O., Cleveland Heights (Warrensville, P. O.)—School—Until Aug. 5, by Bd. Educ., Lee Rd., building 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Taylor Rd. About $500,000. F. C. Warner, Hippodrome Annex Bldg., Cleveland, archt. and engr. Noted Aug. 12.

Mich., Detroit—School—Until Aug. 16, by Bd. Educ., 1354 Bway. Ave., building Franklin School, 3 story, 82 x 246 ft. and 113 x 130 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Brooklyn Ave. About $250,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Ill., Champaign—Hospital—Until Aug. 2, by J. M. White, archt., c/o University of Illinois, Champaign, building addition to Burham Hospital, 3 story, 102 x 109 ft. rein.-con., brick and stone, for Bd. Trustees, c/o F. Isner. About $200,000.

Ill., Chillicothe—High School—Until Aug. 2, by Hotchkiss & Whitmeyer, archts., Central Natl. Bank, Peoria, building 2 story, 104 x 120 ft., rein.-con., brick, stone and steel, for Bd. Educ. About $150,000. Noted July 21.

Wis., West Allis—Grade School—Until Aug. 8, by A. Wichner, clk., Bd. Pub. Wks., building 2 story, 80 x 185 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, in 4th Ward. About $150,000. Lesser & Schulte, 82 Wisconsin St., Milwaukee, archts.

S. D., Rapid City—Court House—Until Aug. 16, by Auditor Pennington Co., building 3 story, stone, rein.-con., steel and brick, rein.-con. flooring. About $500,000. W. E. Hulse & Co., Hutchinson, Kan., archts. Noted Nov. 18.

Mo., Springfield—Temple—Until Aug. 20, by Abou Ben Adhem Shrine, c/o G. Glendorf, Springfield, and Heckenlively & Mark, archts., Landers Bldg., constructing 3 story, 140 x 267 ft., rein.-con. and steel, rein.-con. flooring, concrete foundation, on St. Louis and Kimbrough Sts. About $300,000. Noted June 23.

Tex., Houston—Church—Until Aug. 22, by 1st Baptist Church, building 4 story, 104 x 252 ft., rein.-con. flooring. About $450,000. Bids for steel contract will be received until Aug. 1. C. D. Hill & Co., 801 Sumpter Bldg., Dallas, archts.

Tex., Kerrville—Hospital—Until Aug. 15, by Bldg. Bd. of Amer. Legion, Austin, constructing administration building, 2 ward buildings, help's dormitory, superintendent's home and warehouse here. Legislature appropriated $1,500,000 for project. Phelps & Dewees, 718 Gunter Bldg., San Antonio, archts.

Tex., San Antonio—Bank and Office—Until Aug. 15, by Sanguinet & Steats, archts., First Natl. Bank Bldg., Ft. Worth, building 11 story, 93 x 119 ft., brick, stone, rein.-con. and steel, for Frost Natl. Bank, East Military Plaza. About $1,000,000.

Okla., Sapulpa—School—Until Aug. 2, by Bd. Educ., building 2 story, rein.-con., brick, steel and stone. About $275,000. M. T. Hardin, Sapulpa, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Boston—Store and Office—Snider & Dinker, 18 Tremont St., will build 8 story, brick and concrete, on Oliver St. About $175,000. Work will be done by day labor.

★Mass., Canton—Infirmary—State Building Comn., 48 Franklin St., Boston, let contract building 2 story, 75 x 115 ft. brick, concrete foundation, here, to Genl. Building Co., 524 Harrison Ave., Boston, $161,500.

★Mass., Northampton — Dormitories — Smith College let contract building three 4 story, 40 x 200 ft. brick, on campus, to J. P. Keating, Northampton. About $400,000. Noted May 12.

★Conn., Bridgeport — Club — University Club, 232 Golden Hill St., let contract building 3 story, 50 x 90 ft. addition, brick, concrete and steel, rein.-con. flooring, concrete foundation, to T. J. Pardy Constr. Co., 1481 Seaview Ave. About $125,000. Noted March 24.

Conn., Thomaston—High School—Town received bids building 2 story, 80 x 140 ft. brick, steel and concrete, rein.-con. flooring, concrete foundation, on Main St., from Tracy Bros. Co., 52 Benedict St., Waterbury, $147,132. Noted July 7.

★N. Y., Brooklyn—Apartments—Rappgold Realty Corp., c/o E. M. Adelsohn, archt. and engr., 1778 Pitkin Ave., will build three 4 story, 75 x 100 ft., brick, steel and stone, concrete foundations, on Ocean Ave. About $150,000 each. Work will be done by day labor.

★N. Y., Cortland—School—F. B. Gilbert, acting comr. of Bd. Educ., Educational Bldg., Capitol, Albany, let contract constructing school building, to A. E. Stephens Co., 145 State St., Springfield, Mass., $710,000; electrical work, to Hughes Electric Co., 413 South Clinton St., Syracuse, $22,913; heating, to E. J. Bates, 228 West Water St., Syracuse, $103,358; sanitary work, to Power Efficiency Corp., White Bldg., Buffalo, $35,775. Noted July 21.

★N. Y., New York—Bank—L. Pererra & Co., 116th St. and 1st Ave., let contract altering brick and stone, to Niewenhous Co., Inc., 316 East 161st St. About $150,000.

★N. Y., New York—School—Classon Point Military Academy let contract building 2 story, 50 x 190 ft., brick, steel and stone, concrete foundation, on Clason Point Rd., Bronx, to Carucci & Wolpert, 186 Remsen St., Brooklyn. About $250,000.

★N. Y., Oswego—High School—Bd. Educ., City Hall, let contract building high school, to Prahl Constr. Co., Erie, Pa., $341,751. Noted July 21.

★Pa., Harrisburg — Bank — East End Trust Co., 13th and Howard Sts., let contract building 2 story, concrete and steel, rein.-con. flooring, to Simon, Brittain & English, Magee Bldg., Pittsburgh. About $150,000. Noted Feb. 10.

★Pa., Johnstown—Schools—Bd. Educ. let contract building Maple Park, Coopersdale, Washington and Chestnut St. Schools, all concrete, brick and steel, rein.-con. flooring, to Kilpatrick-Dawson Co., Empire Bldg., Pittsburgh. About $395,000. Noted June 30.

★Pa., Phila.—Bank—Market St. Title & Trust Co., 52nd and Market Sts., let contract building 1½ story, 50 x 100 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 52nd and Market Sts., to Cramp & Co., 4 North 11th St. About $150,000.

★Md., Baltimore—Synagogue—Oheb Shalom Congregation, care of B. Frank, archt., 324 North Charles St., let contract building 4 story, 50 x 130 ft. brick, on Eutaw Pl. and Lanvale St., to West Contr. Co., Amer. Bldg. About $200,000.

★N. C., Raleigh—Dining Rooms, etc.—North Carolina State Hospital for Insane let contract erecting 2 dining rooms (seating capacity 950 each), also altering, remodeling and building additions, to J. E. Beaman, Commercial Bank Bldg. About $600,000. Noted June 9.

★La., New Orleans—Lodge—Knights of Columbus let contract building addition and remodeling present builing on Carondelet St. between Julia and St. Joseph Sts., to L. F. Favret, Canal Bank Bldg. About $150,000.

★Ky., Louisville—Church—First Presbyterian Church, First and Ormsby Sts., let contract repairing and building concrete and brick addition, at 100-108 West Ormsby St., to G. H. Rommel Co., 958 Logan St. About $173,000.

★O., Bedford—School—Bd. Educ. let contract completing 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, to Clemer & Johnson, 406-7 Metropolitan Bldg., Akron, $98,900; heating and power work, to H. P. Cahill, Exchange St., Akron, $38,695. Noted July 14.

★O., Cleveland—Apartment Hotel—B. Lederman, 10709 Pasadena Ave., let contract building 8 story, 60 x 225 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, at 2026 East 107th st., to Bolton-Pratt Constr. Co., Columbia Bldg. About $500,000. Noted March 3.

O., Ravenna—High School—W. J. Dodge, clk. Bd. Educ. opened bids July 15, building 2 story, 127 x 235 ft., brick and concrete, from Willing Bros., Bellevue, $398,055; D. W. McGrath & Sons, New 1st Natl. Bank Bldg., Columbus, $404,662; A. F. Wendling, Massillon, $418,180. Noted June 23.

★Mich., Jackson—Church—First Methodist Episcopal Church let contract building 2 story, 122 x 140 ft. rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation to Koepke Bros., Jackson. About $250,000.

★Ill., Joliet—High School—Bd. Educ. let contract building 3 story, 228 x 240 ft. brick, stone and steel addition, concrete foundation, to Simmons Dick Co., Bloomington. About $300,000. Noted April 7.

★Wis., Milwaukee — Business — Schlitz Brewing Co., 3d and Galena Sts., let contract constructing, 2 story 70 x 155 ft. brick, steel and concrete business building, rein.-con. flooring, concrete foundation, also converting Palm Garden into theatre, to W. W. Oeflein, 86 Michigan St. About $250,000.

★Minn., Bemidji—High School—Bd. Educ. let contract building 3 story, 148 x 230 ft., rein.-con., steel and brick, rein.-con flooring, concrete foundation, to Naufits-Bergstrom, 416 Columbia Bldg., Duluth, $257,975.

★Kan., Wichita—Hotel—Lassen Hotel Co. let contract building 10 story, 48 x 57 ft. rein.-con., brick nd stone addition, to Collins Bros., Rialto Bldg., Kansas City. About $175,000.

★Kan., Wichita—Theatre and Office—Orpheum Theatre Co., c/o A. Gray, let contract building 3 story, 40 x 90 ft. and 7 story, 50 x 140 ft., on 1st and Lawrence Sts., to Vaughn Constr. Co., Peter Trust Bldg., Omaha, Neb. About $700,000. Noted Feb. 6.

★S. D., Aberdeen—School—Bd. Educ. let general contract building 2 story, 63 x 102 ft. rein.-con., brick, stone and tile, to J. H. Brown Co., 621 South 3rd St., Minneapolis, Minn., $79,846. Noted June 23.

★Mo., Kansas City—Assembly Hall, etc.—Boys Hotel, 18th and Waldrond Sts., let contract building 4 story, 44 x 89 ft., assembly hall and swimming pool, brick, stone, steel and terra cotta, on Admiral and Vine Sts., to Fogel Constr. Co., Reliance Bldg. About $150,000. Noted July 14.

★Mo., Kansas City — Bank — Peoples Trust Co., c/o C. S. Alver, 1120 Walnut St., let contract building brick, steel and tile, on 10th and Grand Sts., to G. M. Bliss Constr. Co., Lathrop St. About $150,000.

★Ia., Sioux City — Temple — Scottish Rite Masons let contract building 3 story, 150 x 150 ft. rein.-con., brick, tile and stone, on 9th and Nebraska Sts., to Fleisher Constr. Co., 19th and Pearl Sts., $274,000; foundation, to F. J. Sulzbach, 224 Mass. Bldg., $35,259; piling and capping, to E. A. Whitney, 619 5th St., $55,828. Noted June 30.

★Okla., Pryor—Court House—Mayes Co. let contract building 3 story, 75 x 85 ft., brick, stone, steel and concrete, to J. J. Rooney, 318 West Okmulgee St., Muskogee, $159,974. Noted June 16.

★Que., Montreal — Synagogue — Shaar Hashomayim Synagogue, McGill College Ave., let contract building superstructure of 96 x 168 ft., 64 ft. high, brick and steel, rein.-con. flooring, on Cote St. Antoine Rd. and Kensington Ave., to P. Lyall & Sons Constr. Co., 5000 Western Ave. About $250,000.

★Ont., Peterboro—Hospital—St. Josephs Hospital let general contract building 4 story, 45 x 130 ft. rein.-con., brick and steel addition, rein.-con. flooring, concrete foundation, to Russell Constr. Co., Harbor Bldg., Toronto. About $143,500.

Federal Government Work

PROPOSED WORK

Mass., Boston—Mechanical Equipment—Spec. 4495—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install mechanical equipment and piping, also alter boiler plant ,here.

R. I., Newport—Refrigerator Equipment—Spec. 4363—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids received June 22, installing at Naval Sta., here. Work will be readvertised. Noted July 7.

Va., Alexandria—Altering Plating Shop, etc.—Spec. 4373—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids altering plating shops and cafeteria, at Naval Torpedo Sta., here. Noted May 12.

Va., Alexandria—Cafeteria Equipment—Spec. 4315—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids installing in Naval Torpedo Sta., here. Noted March 31.

BIDS DESIRED

Pa., Phila.—Dredging—Until Aug. 22, by U. S. Engineer, 815 Witherspoon Bldg., dredging in lower Delaware River; advertised in this issue.

Mich., Detroit—Dredging—Until Aug. 22, by U. S. Engineer, for dredging in West Neebish Channel, St. Mary's River; advertised in this issue.

Col., Denver — Pumping Units — Until Sept. 14, by U. S. Recl. Serv. furnishing 2 direct pumping units for Thomas Point Pumping Plant. M. Bien, acting dir.; advertised in this issue.

Ore., Portland—Dredging Sleeves—Until Aug. 15, by U. S. Engineer furnishing sixteen 36 in. dredging sleeves.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

R. I., Providence—Dredging—U. S. Engineer, Providence, received bids July 22 dredging in New Haven harbor, Conn., (a) Sect. 1 (b) Sect. 2 (c) Sect. 3, from Packard Dredging Co., 1004 Turks Head Bldg., (a) $0.26 (b) $0.26 (c) $0.25 total $40,915; Taylor Dredging Co., Compaw Ave., Jersey City, N. J., (a) $0.27 (b) $0.27 (c) $0.38 total $43,610; F. E. Jones, 1002 Bank of Commerce Bldg., Norfolk, Va., (a) $0.33 (b) $0.33 (c) $0.33 total $51,975. Noted July 7.

★N. Y., Brooklyn—Roads and Sidewalks—Spec. 4468—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract laying concrete roads and sidewalks, at Naval Hospital, here, to H. S. Roberts & Co., 151 East 38th St., New York City, $9,900 (45 days). Noted June 30.

N. Y., New York—Fire Alarm System—Spec. 4470—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 20 constructing fire alarm and watchman's signal systems for Building 5, here, from J. W. Hooley, 45 Barclay St., New York City, $2,875 (90 days); Michigan Auxiliary Fire Alarm Co., 4108 Woodward Ave., Detroit, Mich., $3,174 (90 days); I. Stark & Co., 346 Tompkins Ave., Brooklyn, $3,735 (60 days). Noted July 7.

★N. Y., New York—Mechanical Equipment—Treas. Dept., Wash., D. C., let contract installing in Junior Officers Quarters, at Marine Hospital, here, to Keller Bros., 168 East 91st St., $3,980 (60 days).

★N. Y., New York—Officers Quarters—Treas. Dept., Wash., D. C., let contract constructing complete, except mechanical equipment, at Marine Hospital, here, to B. Diamond, 12 Bergen St., Brooklyn, $16,725 (5 months).

★D. C., Bellevue—Electric Freight Elevator—Spec. 4421—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in U. S. Naval Experimental and Research Laboratory, here, to Burwak Elevator Co., 216 Fulton St., New York City, $4,990 (90 days). Noted July 21.

★D. C., Wash.—Retaining Walls—U. S. Engineer, Munitions Bldg., let contract constructing, in Meridian Hall Park, to C. H. Tompkins, 1883 3rd St. N. W., $38,900.

N. C., Oteen—Fire Alarm System—Treas. Dept., Wash., D. C., received bids July 20 constructing in Marine Hospital, here, from Blumenthall-Kahn Electric Co., 505 North Eutaw St., Baltimore, $14,616 (150 days) alternate $21,966 (175 days); L. D. Webb, Anderson, S. C., $15,997 (99 days), Tucker & Laxton Inc., Realty Bldg., Charlotte, $17,000 (120 days), alternate $23,000 (120 days); Croker Natl. Fire Prevention Eng. Co., 22 West 30th St., New York City, $20,980 (118 days), alternate $27,975 (118 days).

S. C., Charleston—Air Compressor—Spec. 4431—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids July 20 installing, here, from Nordberg Mfg. Co., Chicago and Milwaukee Sts., Milwaukee, Wis., $34,100 (175 days); Worthington Pump & Mchy. Co., Homer Bldg., Wash., D. C., $42,345 (175 days); Ingersoll-Rand Co., 11 Bway., New York City, $50,980 alternate $48,401 (120 days).

★ Ky., Dawson Springs—Buildings—Treas. Dept., Wash., D. C., let contract constructing 13 buildings at Marine Hospital, here, to A. Blair, 1180 Lawrence St., Montgomery, Ala., $596,300. Noted July 21.

★Ky., Dawson Springs — Electric Sub-Station—Treas. Dept., Wash., D. C., let contract constructing outdoor electric sub-station, at Sanatorium, here, to Strang Electric Co., 214 South 7th St., Phila., Pa., $7,120 (90 days). Noted June 30.

★Ky., Dawson Springs—Mechanical Equipment—Treas. Dept., Wash., D. C., let contract installing in Public Health Sanatorium, here, to Forbes Mfg. Co., Hopkinsville, Ky., $196,255. Noted July 21.

★O., Cleveland—Steam Piping—Treas. Dept., Wash., D. C., let contract installing steam piping in Marine Hospital, here, to C. J. Gleason, 1526 Walton Way, Augusta, Ga., $5,230.

★ O., Lima—Post Office—Treas. Dept., Wash., D. C., let contract remodeling, here, to Garber & Cissel, Inc., Bethlehem, $5,358 (60 days). Noted June 23.

★Mich., Flint — Vestibule — Treas. Dept., Wash., D. C., let contract constructing mailing vestibule, etc, in postoffice, here, to G. A. Burley Co., Flint, $11,668 (90 days). Noted July 14.

★Mich., Pontiac—Mailing Vestibule—Treas. Dept., Wash., D. C., let contract constructing in postoffice, here, to Garber & Cissel, Inc., Bethlehem, Pa., $5,000 (50 days). Noted June 30.

★Ill., Chicago—Fire Protection System—Treas. Dept., Wash., D. C., let contract installing in Marine Hospital, here, to W. Harding, 3139 Indiana Ave., $2,998 (30 days).

★Idaho—Roads—U. S. Bureau Pub. Rds., Ogden, Utah, let contract grading and partly gravel surfacing 6.83 mi. Sect. 2, Montpelier-Afton Rd., 20-ft. wide, Caribou Natl. Forest, Bear Lake Co., to Reeves & Cook, Ogden, Utah, $16,051; part of Ketchum-Clayton Project, Sawtooth Natl. Forest, Blaine Co., to Saylor, Biehl & Williams, Ogden, Utah, $21,671.

★Wash., Puget Sound—Water System Extension—Spec. 4447—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract extending fresh and salt water systems, here, to R. H. Travers, 3144 Arcade Bldg., Seattle, $24,781 (100 days). Noted July 21.

★Cal., San Diego—Electric Elevator—Spec. 4441—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing, in storehouse, here, to Hollister-Whitney Co., 211 North 2nd St., Quincy, Ill., $22,635 (180 days). Noted June 9.

★H. T., Honolulu—Extending Railway, etc.—U. S. Engineer, Munitions Bldg., Wash., D. C., let contract extending railways, and erecting searchlight unit complete, here, to R. E. Woolley, Honolulu, $21,102.

★H. T., Honolulu—Submarine Cable—U. S. Engineer, Munitions Bldg., Wash., D. C., let contract laying, here, to B. Lauahi, Honolulu, $4,370.

Miscellaneous

PROPOSED WORK

Incinerator—Charleston, W. Va.—City having preliminary plans prepared for incinerator. Election Aug. 17 to vote on $100,000. E. Bruce, city engr.

Transmission Line—Dunn, N. C.—Carolina Power & Light Co., Raleigh, plans to build 10 mi. transmission line from here to Benson, also improve plant and lines, here. About $100,000. P. A. Tillery, Raleigh, engr.

Transmission Line—Elizabeth, Minn.—Oscar Electric Co. plans to build 11 mi. transmission line. About $25,000. H. H. Haldorson, pres.

Transmission Line—Bluff City, Mo.—City voted $25,000 bonds to build 12 mi. transmission line from here to Anthony, Kan. C. W. Duncan, clk. W. B. Rollins & Co., Ry. Exch. Bldg., Kansas City, engrs.

Lighting System — Dorchester, Ont. — Town plans to build hydro lighting system here and branch lines to supply power and light to villages of Belmont and Harrietsville. Address S. Shaw, Dorchester.

BIDS DESIRED

Tunnel Piping Material—Hathorne, Mass.—Until Aug. 4, by Dept. Mental Disease, Boston, furnishing piping material at Danvers State Hospital, here. G. M. Kline, comr.; advertised in this issue.

Test Borings—Phila., Pa.—Until Aug. 18, by Delaware River Bridge Joint Comn., Room 1134, Widener Bldg., making test borings at sites of piers and anchorages of bridge over Delaware River between here and Camden, N. J.; advertised in this issue. Noted Jan. 20.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Memorial Fountain—Detroit, Mich.—Parks & Blvds. Dept., 602 Marquette Bldg., let contract building Scott Memorial Fountain on Belle Isle, to J. Bollin Co., 1259 Book Bldg., $345,200. Noted July 7.

★Coal Picket—Fall River, Mass.—W. C. Atwater & Co., Inc., 2 Bedford St., let contract constructing rein.-con. coal picket, 1,000 ton capacity, to Booth & Chase Inc., 2 Bedford St. About $25,000. Noted April 14.

★Swimming Pool—Waterbury, Conn.—Park Extension Comn. let contract building 50 x 120 ft. concrete and tile swimming pool, at Chase Park, to Waterbury Concrete Constr. Co., 65 Jefferson St., $25,875.

Asphalt Road Oil, etc.—Brooklyn, N. Y.—E. Riegelmann, boro pres., Boro Hall, opened bids July 20 furnishing and delivering 100,000 gal. asphalt road oil, from Texas Co., 17 Battery Pl., New York City, $0.0523 per gal., total cost $5,230; Standard Oil Co., 26 Bway., New York City, $0.0504, $5,040; 129,300 ft. lumber, from East River Mill & Lumber Co., 92d St. and East River, New York City, $6,198, Eclipse Box and Lumber Co., 425 Greenpoint Ave., $7,038, G. Elias & Bros., Inc., 22 East 17th St., New York City, $7,152; manhole heads and covers, from Campbell Fdry. Co., 313 Manor Ave., Harrison, N. J., $2,548, Flockhardt Fdry. Co., $2,932, L. C. Harry Co., 114 Liberty St., New York City, $3,439. Noted July 14.

Paving Gravel — New York, N. Y. — H. Bruckner, pres. Bronx Boro, Municipal Bldg., Crotona Park, Tremont and 3d Aves., opened bids July 20, furnishing and delivering (1) 500 cu.yd. paving gravel, (2) 1,500 cu.yd. fine sand, (3) 5,000 bags Portland cement, (4) 20,000 gal. bituminous road surfacing material (for hot use), from C. and C. Contg. Co., (1) $1,875, (2) $2,775; Ames Bldg., Material Co., Inc., 3437 Kingsbridge Ave., (1) $1,920, (2) $2,685; Lanigan Bros., Bronx River and 165th St., (2) $2,625; J. A. McCarthy, 551 Exter St., (3) $3,737; J. P. Duffy Co., 207 East 138th St., (3) $3,825; Tar Products Corp., 1270 Bway., (4) $3,800; Barrett Co., 17 Battery Pl., (4) $3,800; F. J. Lewis Mfg. Co., (4) $4,100. Noted July 14.

★Incinerator—Oil City, Pa.—City let contract building 30 ton garbage incinerator, to Chicago Incinerator Co., 2131 Turner St., Chicago, Ill. About $26,200.

Retaining Wall—Canton, O.—See "Excavation and Dredging."

★Plumbing, Heating and Ventilating Systems—Cleveland, O.—City let contract installing plumbing, heating and ventilating systems in new city hospital buildings (now under construction), to W. G. Cornell Co., Leader-News Bldg., $469,940. Noted July 7.

★Pipe and Specials—Detroit, Mich.—Water Bd. let contract furnishing 2,500 tons 36 in., 525 tons 30 in. and 1,475 tons 24 in. c.i. water pipe, to Lynchburg Fdry. Co., Peoples Natl. Bank Bldg., Lynchburg, Va., $47.30 per ton, total $212,850; 150 tons 4-24 in. and 30 ton 30-48 in. special castings, to Russell Wheel & Fdry. Co., Chene St. and Belt Line Ry., $84 per ton for 4-24 in., $94.60 for 30-48 in.

Street Cleaning Machine—West Allis, Wis.—City received bids furnishing 1 street cleaning machine (sweeper), from Elgin Sales Corp., Elgin, Ill., $7,250; Hunter Mchry. Co., 208 Wells St., Milwaukee, $7,500. Noted July 7.

★Gravel Loader—Mankato, Minn.—Blue Earth Co. let contract furnishing 1 gravel loader, to Austin Western Road Mchy. Co., 375 Cedar St., St. Paul, $9,600. Noted May 19.

★Swimming Pool—Kansas City, Mo.—See "Buildings."

★Culverts—Gilmer, Tex.—Upshur Co. let contract building rein.-con. and steel drainage structures in Div. 2, Highway 11, to General Constr. C., 582 Arcade Bldg., St. Louis, Mo., $37,018 including 10% for engineering and contingencies. Noted July 7.

OFFICIAL PROPOSALS

Bids: Aug. 2.

Pavement Construction

Hartford, Conn.

SEALED PROPOSALS will be received by the State Highway Commissioner, 240 Farmington Avenue, Hartford, Conn., until 2 p.m., Tuesday, August 2d, 1921, for the following sections of State work, in accordance with plans and specifications on file in the office of the State Highway Commissioner and at the following places:

TOWN OF WILTON: About 3,000 lin.ft. of 8-inch gravel on the Westport Road. Plans and specifications at the town clerk's office, Wilton, Conn., and office of G. E. Smith, Division Engineer, New Milford, Conn.

TOWN OF GROTON: About 1,970 ft. of concrete road on Thames Street. Plans and specifications at the town clerk's office, Groton, and office of A. W. Bushell, Division Engineer, Thayer Building, Norwich, Conn.

TOWN OF TORRINGTON: About 1,800 lin.ft. of 3-in. bit. mac. over 7-in. crushed screened gravel base on the Nepaug Road. Plans and specifications at the office of the town clerk, Torrington, and office of D. C. Loewe Division Engineer, Winsted, Conn.

TOWN OF KILLINGLY: About 20,600 lin.ft. of 3-in. bit. mac. over 7-in. broken stone base on the Danielson Road. Plans and specifications at the office of A. W. Bushell, Division Engineer, Thayer Building, Norwich, Conn.

TOWN OF EAST WINDSOR: About 5,300 lin.ft. of 7-in. waterbound macadam on the Broad Brook-Scantic Road. Plans and specifications at the town clerk's office and at the office of R. W. Stevens, Division Engineer, 240 Farmington Ave., Hartford, Conn.

All bids must be accompanied by a surety company bond or a certified check not less than one-third of the cost of the work. The State Highway Commissioner reserves the right to reject any and all bids.

Dated at Hartford, Connecticut, July 18, 1921.

C. J. BENNETT,
State Highway Commissioner,
240 Framington Ave., Hartford, Conn.

Bids: Aug. 2.

Highway Construction

STATE OF MARYLAND
STATE ROADS COMMISSION

Baltimore, Md.

SEALED PROPOSALS for building four sections of State Highway, as follows:

Montgomery County Cont. M-22: One section of State Highway from Henderson's Corner toward Clarksburg, a distance of 1.0 mile (Concrete).

Montgomery County Cont. M-27: One section of State Highway from end Contract M-23, toward Colesville, a distance of 2.0 miles (Concrete).

St. Mary's County Cont. SM-15: One section of State Highway from end Contract SM-14, toward Colton, a distance of 5.0 miles (Gravel).

Dorchester Co. Cont. D-24. One section of State Highway from Cambridge toward Lloyds, a distance of 1.5 miles (Concrete).

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 2d day of August, 1921, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of $1, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred ($500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 16th day of July, 1921.

J. N. MACKALL,
Chairman.

L. H. STEUART,
Secretary.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Tuesday morning (10 o'clock) can usually be published in the issue out the following Thursday. Special price for Official Proposals, 40 cents a line.

Bids: Aug. 17.

Barge Canal Terminals

Albany, N. Y.

Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Wednesday, Aug. 17, 1921, at which place and hour they will be publicly opened and read, for the construction of Barge Canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, and Chapter 402 of the Laws of 1920 and Chapter 176 of the Laws of 1921, as follows:

—1—

TERMINAL CONTRACT NO. 118

For furnishing and installing two three-ton electric semi-portal revolving jib cranes on the Barge canal terminal at Gowanus Bay, Borough of Brooklyn, New York City.

Contract plans, sheets 1 to 2, inclusive.

—2—

TERMINAL CONTRACT NO. 84

For constructing an approach from Clarissa Street to the Barge Canel terminal at Rochester.

Contract plans, sheets 1 to 7, inclusive.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, form of contract and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., at the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., at the office of the Superintendent of Public Works, Erie Basin Terminal, Buffalo, N. Y., and at the office of the Superintendent of Public Works, Terminal Warehouse, Pier 6, East River, New York City.

Copies of detailed plans or drawing may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of each contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to statisfy the Superintendent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

CHARLES L. CADLE,
Superintendent of Public Works.

Bids: Aug. 1.

Furnishing Material and Labor for Construction of Sewer System

Mamaroneck, N. Y.

Notice is hereby given that sealed bids will be received by the Board of Sewer Commissioners of Sewer District No. 1 of the Town of Mamaroneck, N. Y., until 7:30 o'clock p.m., Eastern Standard Time, on Aug. 1, 1921, at the office of the Board of Sewer Commissioners, Weaver Street School House on Weaver Street, in said Town of Mamaroneck, N. Y., for furnishing materials and performing the labor required for constructing section one or section two or for constructing both section one and section two combined of the sewer system in Sewer District No. 1 of the Town of Mamaroneck, N. Y., all in accordance with plans and specifications on file in the office of the Board of Sewer Commissioners, at the Weaver Street School House on Weaver Street, in said Town of Mamaroneck, N. Y., and also in the office of the Engineer, L. E. Van Etten, at No. 12 Lawton Street, New Rochelle, N. Y.

Copies of the plans and specifications may be inspected and obtained from the Engineer to the Commission, L. E. Van Etten, at No. 12 Lawton Street, New Rochelle, N. Y., from Monday, July 18, 1921, and every day thereafter from 9 a.m. to 4 p.m., Saturdays excepted, upon depositing twenty-five dollars ($25), which sum will be refunded upon the return of the plans and specifications in good condition within ten days after the award of the contract or contracts, or else the entire deposit will be forfeited.

By order of the Board of Sewer Commissioner of Sewer District No. 1 of the Town of Mamaroneck.

H. R. MITCHELL,
Secretary.

Dated: Mamaroneck, N. Y.,
July 12, 1921.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 8	Hammond, Ind.	July 21
Aug. 8	**Westwego, La.**	July 21
Aug. 8	**Bay City, Mich.** Adv. July 21, 28 and Aug. 4.	July 28
Aug. 12	**Dallas, Tex.** Adv. July 21, 28 and Aug. 4.	July 21
Aug. 12	**Hammond, Ind.** Adv. Aug. 4.	Aug. 4
Aug. 15	**Allegan, Mich.** Adv. July 28 and Aug. 4.	July 28
Aug. 15	**Atwater, Minn.**	Aug. 4
Aug. 15	**Idlewood, O.**	Aug. 4
Aug. 18	**Joplin, Mo.**	Aug. 4
Aug. 18	**Tulsa, Okla.**	Aug. 4
Sept. 1	**Verona, Pa.**	July 21

SEWERS

Bids Close		See Eng. News-Record
Aug. 8	**Lebanon, Pa.**	July 21
Aug. 8	**Indianola, Ia.** Adv. July 28 and Aug. 4.	July 28
Aug. 8	**Mexico, Mo.**	July 28
Aug. 8	St. George, S. I., N. Y.	Aug. 4
Aug. 8	Long Island City, N. Y.	Aug. 4
Aug. 8	Mexico, Mo.	**Aug. 4**
Aug. 9	**New York, N. Y.**	July 21
Aug. 9	**Independence, Mo.** Adv. July 28 and Aug. 4.	**July 28**
Aug. 9	**Columbus, O.**	**July 28**
Aug. 9	**Woodbury, N. J.**	**July 28**
Aug. 9	St. Joseph, Mo.	**Aug. 4**
Aug. 10	**Maplewood, Mo.**	**July 21**
Aug. 11	**Mt. Vernon, Ill.**	**July 21**
Aug. 11	Excelsior Springs, Mo.	Aug. 4
Aug. 12	Long Island City, N. Y.	**Aug. 4**
Aug. 15	Toronto, Ont.	**Aug 4**
Aug. 17	**Indianapolis, Ind.** Adv. July 28 and Aug. 4.	**July 28**

BRIDGES

Bids Close		See Eng. News-Record
Aug. 8	**Missouri**	July 28
Aug. 9	**St. Louis, Mo.**	July 21
Aug. 9	Wichita, Kan.	Aug. 4
Aug. 9	Quitman, Tex.	Aug. 4
Aug. 10	Council Groves, Kan.	Aug. 4
Aug. 11	**Strawn, Tex.**	July 28
Aug. 12	**Jeffersonville, Ga.**	July 28
Aug. 12	Palo Pinto, Tex.	Aug. 4
Aug. 12	Hempton, Ia.	**Aug. 4**
Aug. 15	**Columbus, O.**	**July 21**
Aug. 15	**Burlington, Wis.**	**July 21**
Aug. 15	Progress, Pa.	Aug. 4
Aug. 17	Rochester, Ky. Adv. July 21, 28 and Aug. 4.	**July 21**
Aug. 17	Denville, N. J. Adv. Aug. 4.	Aug. 4
Aug. 18	**Gaffney, S. C.**	Aug. 4
Aug. 19	**Cobbleskill, N. Y.** Adv. Aug. 4.	Aug. 4
Aug. 23	**Trenton, N. J.** Adv. July 28 and Aug. 4.	July 28
Aug. 30	**Kelso, Wash.**	July 28
Sept. 7	Kingman, Kan.	June 30

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Aug. 10	Ottumwa, Ia.	July 7
Aug. 15	Harlan, Ia.	**Aug. 4**
Aug. 25	Benton, Mo. Adv. Aug. 4.	**Aug. 4**

STREETS AND ROADS

Bids Close		See Eng. News-Record
Aug. 7	**New York, N. Y.**	**Aug. 4**
Aug. 8	**Caro, Mich.**	**July 28**
Aug. 8	**Missouri**	**July 28**
Aug. 8	**Los Angeles, Cal.**	**July 28**
Aug. 8	**So. Pasadena (Pasadena P. O.), Cal.**	**July 28**
Aug. 8	Menominee, Mich.	**Aug. 4**
Aug. 8	Newberry, Mich.	**Aug. 4**
Aug. 8	Louisiana	**Aug. 4**
Aug. 8	St. Paul, Minn.	**Aug. 4**
Aug. 8	Corpus Christi, Tex.	**Aug. 4**
Aug. 8	Groesbeck, Tex.	**Aug. 4**
Aug. 8	Toronto, Ont.	**Aug. 4**
Aug. 8	Milwaukee, Wis.	**Aug. 4**
Aug. 8	Brainerd, Minn.	**Aug. 4**
Aug. 9	**Syracuse, Kan.**	July 7
Aug. 9	**Charleston, S. C.**	**July 21**
Aug. 9	**Trenton, N. J.** Adv. July 21, 28 and Aug. 4.	**July 21**
Aug. 9	**Duluth, Minn.**	July 21
Aug. 9	**Rochester, Minn.**	**July 28**
Aug. 9	**Missouri**	**July 28**
Aug. 9	Trenton, Mo.	**Aug. 4**
Aug. 9	Perryville, Mo.	**Aug. 4**
Aug. 9	Warrentown, Mo.	**Aug. 4**
Aug. 9	Algona, Ia.	**Aug. 4**
Aug. 9	Des Moines, Ia.	**Aug. 4**
Aug. 9	New York, N. Y.	**Aug. 4**
Aug. 9	Paris, Tex.	**Aug. 4**
Aug. 9	Grand Rapids, Minn.	**Aug. 4**
Aug. 9	St. Joseph, Mo.	**Aug. 4**
Aug. 9	**Aberdeen, S. D.**	Aug. 4
Aug. 10	**Council Grove, Kan.**	**July 21**
Aug. 10	**Sandusky, Mich.**	July 28
Aug. 10	**Fargo, N. D.**	July 28
Aug. 10	**Bellaire, O.**	**July 28**
Aug. 10	**Mankato, Minn.**	**July 28**
Aug. 10	**Wisconsin**	**Aug. 4**
Aug. 10	Richmond, Tex.	**Aug. 4**
Aug. 10	Sault Ste. Marie, Mich.	**Aug. 4**
Aug. 10	Richmond, Tex.	**Aug. 4**
Aug. 10	Long Island City, N. Y.	**Aug. 4**
Aug. 10	New York, N. Y.	**Aug. 4**
Aug. 11	Virginia	Aug. 4
Aug. 11	Excelsior Springs, Mo.	Aug. 4
Aug. 12	**Iola, Kan.**	**July 21**
Aug. 12	New York **Adv. July 28 and Aug. 4.**	**July 28**
Aug. 12	Nova Scotia	**Aug. 4**
Aug. 12	Cameron, Tex.	Aug. 4
Aug. 15	**Montreal, Que.**	**Aug. 4**
Aug. 15	Camden, S. C.	Aug. 4
Aug. 15	Palo Pinto, Tex.	Aug. 4
Aug. 16	Albany, N. Y. Adv. July 28 and Aug. 4.	July 28
Aug. 16	New York	Aug. 4
Aug. 17	New Jersey Adv. July 28 and Aug. 4.	July 28
Aug. 17	Missouri	Aug. 4
Aug. 18	Richwood, W. Va.	July 28
Aug. 18	Missouri	Aug. 4
Aug. 20	**Cedarburg, Wis.**	July 28
Aug. 20	Brainerd, Minn.	Aug. 4
Aug. 23	Worthington, Minn.	Aug. 4
Aug. 23	Anoka, Minn.	Aug. 4
Aug. 24	Delaware Adv. Aug. 4.	Aug. 4
Aug. 26	Wellington, Kan.	Aug. 4
Aug. 30	Troy, Kan.	Aug. 4
Aug. 31	Hiawatha, Kan.	Aug. 4
Sept. 2	Ottawa, Kan.	Aug. 4

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Aug. 9	Dickinson, N. D.	July 28
Aug. 9	**Elyria, O.**	Aug. 4
Aug. 14	**Victoria, Australia**	June 2
Aug. 15	**Joliet, Ill.**	Aug. 4
Aug. 16	**Ossining, N. Y.** Adv. Aug. 4.	Aug. 4
Aug. 17	Columbus, O.	Aug. 4

BUILDINGS

Bids Close		See Eng. News-Record
Aug. 8	**Magee, Miss.**	July 14
Aug. 8	**Alliance, O.**	July 21
Aug. 8	**West Allis, Wis.**	July 28
Aug. 8	**Gardner, Mass.**	Aug. 4
Aug. 9	**Ironwood, Mich.**	July 14
Aug. 9	Cleveland, O.	Aug. 4
Aug. 9	Wichita, Kan.	Aug. 4
Aug. 9	Elyria, O.	Aug. 4
Aug. 9	**Hamilton, Ont.**	Aug. 4
Aug. 10	**Abilene, Kan.**	July 21
Aug. 11	**Asheville, O.**	July 14
Aug. 12	**Augusta, Ga.**	July 28
Aug. 15	**Cleveland, O.**	July 28
Aug. 15	**Kerrville, Tex.**	July 28
Aug. 15	**San Antonio, Tex.**	July 28
Aug. 15	Kankakee, Ill.	Aug. 4
Aug. 15	Phila., Pa.	Aug. 4
Aug. 16	**Rapid City, S. D.**	July 28
Aug. 16	**Detroit, Mich.**	July 28
Aug. 16.	North Judson, Ind.	Aug. 4
Aug. 16	**Nashville, Tenn.**	**Aug. 4**
Aug. 18	**Ithaca, N. Y.** Adv. July 28 and Aug. 4.	July 28
Aug. 20	**Springfield, Mo.**	July 28
Aug. 22	Houston, Tex.	July 28
Aug. 22	**Meadville, Pa.**	July 28
Aug. 22	Cleveland, O.	Aug. 4
Aug. 27	**Augusta, Kan.**	**July 21**
Aug. 29	Cleveland, O.	Aug. 4
Aug. 30	Mt. Vernon, Ind.	Aug. 4
Sept. 1	Bascom, O.	Aug. 4
Sept. 6	**Lincoln, Neb.**	**July 21**
Sept. 9	**Ravenna, O.**	**Aug. 4**
Oct. 1	Williamsport, Pa.	Aug. 4

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Aug. 9	Riprap, Baltimore, Md.	Aug. 4
Aug. 10	**Mailing Vestibule—Mason City, Ia.**	**July 21**
Aug. 10	Water and Sewer Systems, Yorktown, Va.	Aug. 4
Aug. 10	Water Tanks and Towers, Yorktown, Va.	Aug. 4
Aug. 11	Cement, Memphis, Tenn Adv. Aug. 4.	Aug. 4
Aug. 15	Post Office, etc. — **Globe, Ariz.**	**July 21**
Aug. 15	Dredging Sleeves—Portland, Ore.	July 28
Aug. 15	Hospital—Norfolk, Va.	Aug. 4
Aug. 16	Riprap, Baltimore, Md.	Aug. 4
Aug. 17	Chimney—Bellvue, D. C.	Aug. 4
Aug. 18	**Dredging, etc. — Buffalo, N. Y.** Adv. July 21, 28 and Aug. 4.	**July 21**
Aug. 19	Mezzanine Floor, Appleton, Wis. Adv. Aug. 4.	Aug. 4
Aug. 22	Dredging—Detroit, Mich. Adv. July 28 and Aug. 4.	**July 28**
Aug. 22	Dredging—Phila., Pa. Adv. July 21, 28 and Aug. 4.	**July 28**
Aug. 22	Buildings—Norfolk, Va.	Aug. 4
Aug. 23	Building, Wash., D. C.	Aug. 4
Aug. 30	Hospital—Lake City, Fla.	Aug. 4
Aug. 31	Dredging, Detroit, Mich. Adv. Aug. 4.	Aug. 4
Sept. 14	**Pumping Units — Denver, Colo.** Adv. July 28 and Aug. 4.	**July 28**

MISCELLANEOUS

Aug. 8	Road Machine, West Allis, Wis.	**Aug. 4**
Aug. 8	Truck, Franklin (R. F. D. from Virginia), Minn.	Aug. 4
Aug. 9	Pipe, Montreal, Que.	Aug. 4
Aug. 9	Paving Blocks, New York, N. Y.	Aug. 4
Aug. 10	Straight Pipe and Special Castings, Milwaukee, Wis.	**Aug. 4**
Aug. 10	Heating System, Wash., D. C. Adv. Aug. 4.	**Aug. 4**
Aug. 10	Sewer Pipe—Milwaukee, Wis.	Aug. 4
Aug. 15	Center Bearing, etc., New Haven, Conn. Adv. Aug. 4.	Aug. 4
Aug. 15	Cargo Shed and Bulkhead, Wilmington, Del.	Aug. 4
Aug. 16	Inspection Shed, Brooklyn, N. Y.	Aug. 4
Aug. 17	Jib Cranes — Brooklyn, N. Y. Adv. July 21, 28 and Aug. 4	**July 21**
Aug. 18	Test Borings—Phila., Pa.	July 28
Aug. 20	Piers and Abutments—Dayton, O.	**July 21**
Aug. 25	Incinerators, Phila., Pa. Adv. July 28 and Aug. 4.	Aug. 4
Aug. 26	Ferry Landing—Palmyra, N. J.	Aug. 4
Aug. 26	Breakwater—Ft. William, Ont.	Aug. 4

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. J., Gloucester — See "Streets and Roads."

Pa., Phila.—City plans to build water tower, also tank 40 ft. in diam., 125 ft. high, brick, stone and slate, at Belmont pumping station. About $175,000. G. Brown City Hall, engr.

O., Germantown—See "Sewers."

O., Lakewood — City plans to construct 24 in. c.i. water mains in Clifton Blvd. from Warren Rd. to Highland Ave. and in Warren Rd. from Clifton to Detroit Aves. About $143,800. E. A. Fisher, City Hall, engr.

O., Sidney—City receives bids about Aug. 15, extending waterworks system, involving 20.5 ton 4 in., 126 ton 6 in., 211.2 ton 8 in. and 167.6 ton 10 in. pipe, 19,000 lb. specials, eighty-two 4-10 in. valves, 82 valve boxes and 21 fire hydrants. B. Coulson, city engr.

Ill., Centralia—City plans to build 1,200 ft. 4 8 in. water mains. About $75,000. H. G. McCormick, mayor. L. W. Lemon, Centralia, engr. Noted May 19.

Ill., Kewanee—City having plans prepared building 6 in. c.i. water mains in south Lang, Gilbert and George Aves. About $25,000. J. Palmer, City Hall, engr.

Ill., South Pekin—City, c/o J. S. Hill, mayor, having plans prepared for waterworks plant and new mains in various streets. About $40,000. B. F. Smith, South Pekin, engr.

Mo., Fairfax—City election soon to vote on $40,000 bonds for waterworks and sewers. E. T. Archer Co., Kansas City, engrs.

N. D., Fargo—City plans to enlarge mixing chamber at filtration plant, equip 2 filter units and purchase electric pump. About $30,000. R. T. Jacobson, city engr.

BIDS DESIRED

O., Idlewood—Until Aug. 15, by village, installing c.i. water mains in Silsby Rd. from Taylor to Warrenville Center Rds. About $25,000. F. A. Pease Eng. Co., Marshall Bldg., Cleveland, engrs.

Ind., Hammond—Until Aug. 12, by Bd. Pub. Wks., constructing and erecting 15,000,000 gal. pumping engine. J. Ericson, 30 North La Salle St., Chicago, Ill., consult. engr.; advertised in this issue.

Minn., Atwater—Until Aug. 15, by City, extending water mains, involving 8,900 lin. ft 4 in. c.i. pipe, nineteen 4-6 in. gate valves, 12 hydrants and 3,330 lb. special castings. About $15,000. Engineer not announced.

Mo., Hayti—Until Aug. 8, by city, constructing 2 wells 100 ft. deep, 2 triplex pumps direct connected to 15 hp. oil engines, 3,000 ft. 4-6 in. c.i. pipe, 30,000 gal. capacity steel tank on 100 ft. steel tower. About $30,000. A. C. Moore, 1710 Murphy Bldg., Joplin, engr. Noted May 19.

Okla., Tulsa—Until Aug. 18, by Bd. Comrs. at office city auditor, for pump, cost $7,000, filter units and equipment, $56,000; settling basin, buildings, pipe work, etc., $86,373.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Pa., Phila.—City let contract laying 36 in water pipe in 22nd St. from York to Ridge Aves. also 36 and 48 in. pipe from 7th St. and York Ave. to Girard Ave. and Marshall St., to A. J. Ellis, Phila., $25,850 and $45,690 respectively; also furnishing and installing coal handling equipment for Torresdale pumping station, to Specialty Eng. Co., Pennsylvania Bldg., $13,945.

★O., Akron—City let contract constructing 3 mi. pipe line together with appurtenances between Cuyahoga River Crossing south of Kent and Tallmadge Center, Contr. 207, to East Jersey Pipe Co., 350 21st Ave., Paterson, N. J., $248,584. Unit prices on this project may be obtained upon writing Engineering News-Record. Noted July 14.

★O., Cleveland Heights (Cleveland P. O.) —Consolidated Allotment Co. let contract constructing water mains and sewers in Grosvenor and Cummins Rds., involving 1,800 ft. 10 in. and 4,020 ft. 12-30 in. vitr. tile pipe, to Hadded-Mall Co., The Arcade, Cleveland, $33,417.

O., Garfield Heights (Garfield P. O.)—Village received bids installing 11,955 ft. 8 in. c.i. water mains in Turney Rd., from N. Iafornar, 3218 Murray Hill Rd., Cleveland, $45,248; Post Constr. Co., Fairchild Ave., Cleveland, $47,330.

O., Maple Heights (Worthington P. O.)—Village received bids laying water mains in Libbey Rd., from Gantos Constr. Co., Columbia Bldg., Cleveland, $28,419, Post Constr. Co., Fairchild Ave., Cleveland, $29,860; in Arch, Joseph, Phillip, Irwin, Cato, Thomas, McCracken, Sterling Stanley and Miller Sts., from Lanesee Co., Columbia Bldg., Cleveland, $87,180; Gantos Constr. Co., Columbia Bldg., Cleveland, $91,000. Above work involves 30,276 lin. ft. 8-10 in. c.i. pipe.

★O., South Euclid—Village let contracts laying water mains in Golfway, Lawnway, Maywood and Rushton Aves., Oakmont, Laclede, Renford, Westdale, Bayard and Green Rds., to A. Marra, Ullmer Bldg., Cleveland, $107,079; Piermont, Delwood, Ardmore, Adrian and Elmwood Aves., Winston and Avondale Rds., Belvoir Blvd., to Hadded-Mall Co., Schofield Bldg., Cleveland, $111,817. Noted July 28.

★Ill., Washington—City let contract for increasing waterworks capacity from 200,000 to 400,000 gal. per 24 hours to M. Elbert, Washington, $75,450. Noted July 21.

Ia., Des Moles—Des Moines Water Co., 1001 Locust St., opened bids July 28, constructing 3 story, 103 x 120 ft., brick and concrete pumping station and coal pit on Southwest 17th St., from A. H. Neuman Co., 519 Hubbell Bldg., $173,829; W. F. Kucharo, 622 Hubbell Bldg., $182,555; J. Maine & Sons, 119 8th St., $89,837.

★Kan., Council Groves—City let contract improving waterworks system, including new mains and pumps, to Merkle Mfg. Co., 508 Interstate Bldg., Kansas City. About $25,000. Noted July 21.

★Kan., McPherson — City let contract building rein.-con. standpipe, to H. M. Stucker, Lawrence. About $38,000.

★S. D., Redfield—City let contract constructing rein.-con., reservoir, 1,000,000 gal. capacity, and concrete pumping building, to H. F. Stolte, Redfield, $34,985. Noted June 30.

Sewers

PROPOSED WORK

N. Y., Rochester—City soon receives bids building sewers in Clinton Ave., Navarre and Versailles Rds., Collingwood and Rutledge Drives, Argonne, Alcuzar, Hargrove and St. Paul Sts., also surface sewers in street intersections, etc. About $116,800. A. R. Tuttle, city engr.

N. J., Gloucester—See "Streets and Roads."

Pa., Phila.—City having plans prepared for sewage disposal plant with reservoir. 60,000,000 gal. capacity, at Mingo Creek pumping station, also intake sewerage system to reservoir. About $275,000. G. Brown, City Hall, engr.

W. Va., Clarksburg — See "Streets and Roads."

O., Germantown—City having plans prepared for storm and sanitary sewerage system and waterworks system, involving 8 30 in. vitr. pipe, manholes, catch basins, etc. About $100,000. R. B. Alien, 600 U. B. Bldg., Dayton, engr.

Ind., Brazil — Bd. Pub. Wks. plans to build 1 story sewage disposal plant, brick and rein.-con. About $150,000. F. Dearmy, clk.

Mo., Fairfax—See "Waterworks."

Ont., St. Thomas—City having plans prepared for storm sewers. About $50,000. W. Miller, City Hall, engr.

BIDS DESIRED

N. Y., Long Island City—Until Aug. 12, by M. E. Connolly, pres. Queens Boro, constructing sewers and appurtenances in portions of 76th St. (Lott Ave.); 77th (Rector) St.; 87th Rd. (2d St.); 88th Ave. (3d St.); 88th Rd. (4th St.); 89th Ave. (5th St.); 90th Ave. (6th St.); 91st Ave. (8th St.-Fulton St.); Rockaway Blvd.; 79th St. (Dakota Ave.); 80th St. (Shaw Ave.); 81st St. (Nevada Ave.); 82d St. (Montana Ave.); 88th St. (Boyd Ave.); 89th St. (Ocean View Ave.); 90th St. (Woodland Ave.); 91st St. (Thrall Ave.), 4th Ward; Ferguson St., Roosevelt Ave., Gunther St., Havemeyer St., Kingsland Ave., North Railroad Ave., South Railroad Ave., Lurting St., Nicholls St., Opdyke St., Proovost St., Radcliffe St, Tiemann Ave., 2d Ward.

N. Y., Long Island City—Until Aug. 8, by M. E. Connolly, pres. Queens Boro., building sewer in (1) Jay Ave., etc., cost $35,000, (2) Jeffrey Ave., etc.

N. Y., New York — See "Streets and Roads."

N. Y., S. I., St. George—Until Aug. 8, by C. D. Van Name, pres. Richmond Boro, building sewage treatment plant on block bounded by Quincy St., Cromwell, Boardman and Scotland Aves., also relay pumping station on Seaside Blvd. and Hinschcliff Ave., etc. About $55,000.

Sewers (Continued)

Mo., Excelsior Springs—Until Aug. 11, by City Clerk, building sewers in Dists. 12, 44, 48, 49, 50 and 51, involving 11,300 ft. 8 in. v.c. pipe, 42 manholes. About $27,000. Shockley Eng. Co., Kansas City, Mo., engrs.

Mo., Mexico—Until Aug. 8, by W. Deoring, city clk., building sewage disposal plant and outfall sewers. Formed bids rejected. Black & Veach, Interstate Bldg., Kansas City, engrs.

Mo., St. Joseph—Until Aug. 9, by city, laying 8-12 in. tile sewers in Dist. 95. About $25,000. G. E. Jackson, clk. Private plans.

Ont., Toronto—Until Aug. 15, by T. L. Church, mayor, building 7,200 ft. vitr. tile sanitary sewers in Terauley St. and Roselawn Ave. About $30,000. R. C. Harris, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Mass., Ludlow—Dept. Pub. Wks. will build 1 mi. vitr. sewers north of Indian Leap Bridge. About $25,000. Work will be done by day labor under supervision of M. T. Brennan. Noted June 9.

★Mass., Northbridge—Town let contract extending sewerage system, to McClintock & Woodfall, 14 Beacon St., Boston. About $60,000. Noted Mar. 24.

★Conn., Torrington—Town plans to improve sewerage system, vitr. pipe. About $351,000. Work will be done by day labor.

★O., Cleveland Heights (Cleveland P. O.) —See "Waterworks."

★O., Euclid—Village let contracts building sewers and watermains in Wondergrove Ave., Parkview, West Brook and Gilchrist Drives, to Gantos Constr. Co., Columbia Bldg., Cleveland, $22,912; in Arms Ave., Glenside and East Brook Drives, to Hadded-Mall Co., The Arcade, Cleveland, $14,270. Above work involves 10,120 lin. ft. 8-15 in. vitr. pipe. Noted May 19.

Ind., Indianapolis — Bd. Pub. Wks. received bids building 1 story, 64 x 108 ft. sewage disposal plant, rein.-con., brick and steel, rein.-con. flooring, from Fruin & Colnon Contg. Co., Merchants-Laclede Bldg., St. Louis, Mo., $198,000; G. W. Bunning, Peoples Bank Bldg., $200,000; J. W. and W. C. Martin, 323 West 10th St., $220,000. Above bids rejected. Work will be readvertised.

★Ill., Elmhurst — City let contract contract constructing 2,790 ft. 15 in. vitr. tile sewers, etc., in various streets to F. J. Donohue, Stevens Point, Wis. About $40,000. Noted July 14.

★Minn., West St. Paul (St. Paul P. O.) —City let contract building sanitary sewerage system to Thornton Bros. Co., 304 Central Bank Bldg., St. Paul, $50,787. Noted July 21.

★Kan., Ft. Scott—City let contract building sewers in various streets, to Amerman & Snyder, 248 North Market St., Wichita, $42,516. Noted July 14.

★Mo., Excelsior Springs—City let contrac, building 10 18 in. vitr. tile sewers and disposal plant, to Harness Bros., Ottumwa, Ia., $54,385. Noted July 7.

Bridges

PROPOSED WORK

Ala., Andalusa—Covington Co. plans to build one 120 steel span with 100 ft. concrete trestle approach over Pigeon Creek. About $25,000. L. P. Smith, Montgomery, state bridge engr.

Col., Las Animas—Bent Co. and State Highway Dept., Denver, having plans prepared building 3 span steel bridge, concrete floor, across Arkansas River on Santa Fe Trail, here. About $110,000. L. D. Blauvelt, State Museum Bldg., Denver, engr.

Col., Las Animas—Bent Co. (Las Animas), Otero Co. (La Junta), and State Highway Dept., Denver, having plans prepared building steel bridge, concrete floor, over Arkansas River, between Otero and Bent Counties. About $40,000. L. D. Blauvelt, State Museum Bldg., Dever, engr.

Col., Pueblo—Pueblo Co. and State Highway Dept., Denver, having plans prepared building steel bridge, concrete floor, on Sante Fe Ave., about $150,000; steel bridge, concrete floor across St. Charles River, on Sante Fe Trail near here, $30,000; steel bridge, concrete floor, over Salt Creek ,east of here, $25,000. L. D. Blauvelt, State Museum Bldg., Denver, engr.

BIDS DESIRED

N. Y., Cobleskill—Until Aug. 19, at office of A. J. Brown, town clk., building bridge over Cobleskill Creek, on Bramanville and Howe Cave Rd. D. Netheway, Jr., supt. highways; advertised in this issue.

N. J., Denville—Until Aug. 17, by State Highway Comn., Broad St. Bank Bldg., Trenton, building Bridge 74, M.P.O.4-E, on Route 12, Sect. 2, here. A. L. Grover, ch. clk.; advertised in this issue.

Pa., Progress—Until Aug. 15, by H. W. Gough, controller, Dauphin Co., Courthouse, Harrisburg, rebuilding one span, concrete deck and girder bridge over Paxton Creek, here, and 2 span rein.-con. deck and girder bridge over Spring Creek at Hershey.

S. C., Gaffney—Until Aug. 18, by Cherokee Co. Highway Comn., building 625 ft. bridge over Big Thickety Creek, involving 40 cu.yd. dry excav., 83.5 cu.yd. Class B and 10 cu.yd. Class C, concrete, 4,085 lb. reinforcing steel, 1,120 sq.yd. bituminous surfacing and 401,600 lb. structural steel. T. J. Hester, Gaffney, engr.

Kan., Wichita—Until Aug. 9, by city, c/o H. D. Lester, clk., building 422 ft. rein-con. bridge over Arkansas River on Maple St. About $175,000. Noted May 19.

Kan., Council Groves—Until Aug. 10, by F. A. Robbins, secy. Morris Co., building three 14 ft., rein.-con. bridges, 20 ft. roadway, and three 25 ft. through girder span bridges, 20 ft. roadway. J. McKenzie, Council Groves, engr. Noted June 23.

Tex., Quitman—Until Aug. 9, by B. F. Cathey, Judge Wood Co., building concrete and steel structures and backfilling Tim Hogg Highway, involving 625.06 cu.yd. Class A concrete, 43,475 lb. reinforcing and 23,200 lb. structural steel, 500 cu.yd. dry structural and 306 cu.yd. wet excav., 14,000 cu.yd. earth approach and fill, 140 lin. ft. 24-36 in. c.i. pipe, etc. About $27,500. J. E. Blair, Mineola, engr.

Tex., Palo Pinto—Until Aug. 11, by Palo Pinto Co., building concrete girder and steel span over Palo Pinto River. About $26,500. M. V. Smith, Palo Pinto, engr.

Ia., Hempton—Until Aug. 12, by E. D. Haecker, aud. Franklin Co., constructing 4 bridges, to include two 40 ft. pony truss, one 16 ft. and one 18 ft. slab. About $25,000. F. S. Currie, Hempton, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

R. I., Warwick—State Bd. Pub. Sds., Providence, received bids July 27, constructing 3 span, rein.-con. arch bridge between here and Cranston, from T. I. Ellis, 171 Westminster St., Providence, $40,393; S. C. Sperry, 300 Main St., Cambridge, Mass., $42,570; Rendle-Stoddard Co., Chelsea, Mass., $45,000. Noted July 21.

Pa., Lewistown—Boro received bids building (1) 84 ft. single span arch bridge, Plan A, (2) reconstructing present 2 span arch bridge, Plan B, over Kishacoquilis Creek, South Main St., from R. R. Myers, 119 South Main St., Lewistown, (1) $31,923, (2) $18,428; J. O. Eshelman, Lewistown, (1) $35,130, (2) $22,208; Butz & Clader, Allentown, (1) $36,294; C. G. Shaffer & Co., Phila., (2) $23,451.

Pa., Phila. — City rejected bids opened July 14 removing old bridge on South St. over Schuylkill River and building new piers. Work will be readvertised in six weeks. F. H. Caven, 211 City Hall, dir. Noted July 21.

★S. C., Lanes — Bd. Comrs. of Santee Bridge Dist., Chamber of Commerce Bldg., Charleston, let contract building bridge over Santee River, to Rollin Constr. Co., 90 West St., New York City. About $632,000.

O., Fremont—Sandusky Co. received bids building 350 ft. rein.-con. bridge, 42 ft. wide, over Sandusky River, from C. Stiwell, Fremont, $196,970 for stone rail, $183,970 for concrete rail; Jones Bros., Fremont, $197,468 for stone rail, $188,868 for concrete rail. Noted July 21.

★Minn., Duluth—St. Louis Co. let contract building 15 concrete and steel bridges on Miller Trunk Highway north of here, ranging from 20-416 ft. long, 18 ft. wide, to Minneapolis Bridge Co., 1035 Metropolitan Bank Bldg., Minneapolis, $25,135, Illinois Steel Bridge Co., 522 Gilfilian Bldg., St. Paul, $56,014, M. A. Adams, 927 Andrus Bldg., Minneapolis, $9,300, Iowa Bridge Co., Builders Exch. Bldg., Minneapolis, $5,247, W. S. Hewitt, 520 Metropolitan Bank Bldg., Minneapolis, $8,370, A. Guthrie & Co., 366 Jackson St., St. Paul, $19,739. Noted July 7.

California—State Highway Dept., 515 Forum Bldg., Sacramento, received bids building bridge across Bear Gulch, near Garbersville, on Div. 1, Route 1, Sect. B, Humboldt Co., involving (a) 660 cu.yd. Class A and (b) 255 cu.yd. Class C concrete, from F. H. Green, Eureka, (a) $37 per cu. yd. (b) $36, total $33,600, C. H. Gildersleeve, Fresno, (a) $41.50, (b) $36.50, total $36,698, Rocca, Caletti & Liebert, San Rafael, (a) $43.50, (b) $35, total $37,635; bridges over Shasta River, Parks and Willow Creeks, on Div. 2, Route 3, Sect. B, Siskiyou Co., from T. H. Polk, Chico, $18,510, G. H. Wilson, Jr., Dunsmuir, $18,960, R. B. McKenzie, Gerber, $23,190.

Ont., Hamilton — Toronto, Hamilton & Buffalo Ry., Hunter St., will build concrete bridge on Robinson St. About $30,000. Work will be done by day labor. R. L. Latham, Hunter St., engr.

Railways

PROPOSED WORK

Missouri—Chicago & Alton R.R., 6083 South Dearborn St., Chicago, plans to lay 7 mi. track from Eldred, Green Co., to Reddish, Ill. About $60,000. H. T. Douglas, Jr., ch. engr.

Ontario—Toronto Transportation Comn., Ryrie Bldg., Toronto, plans to build 1½ mi. double track extension on Queen St. from Sunnyside Ave. to Humber River, Toronto. H. H. Couzens, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★New Hampshire—Boston & Maine R.R., North Sta., Boston, let contract extending railroad tracks at Concord to T. Stuart & Son, Inc., 222 Pearl St., Newton, Mass. About $325,000.

Excavation and Dredging

PROPOSED WORK

Ia., Glenwood—Levee—Mills and Pottawattamie Counties plan to construct joint levee district on Missouri River. About $40,000. W. N. Moore, co. clk.

Ia., Marshalltown — Excavation — Marshall Co. plans to straighten and deepen 30 mi. Iowa River, average bottom width 60 ft., depth 14 ft. About $35,000. F. B. Ingersoll, Marshalltown, engr.

Minn., Albert Lea—Ditch—Freeborn Co. rejected bids opened July 18, building Judicial Ditch 4, involving 1,470,705 cu.yd. excav. and 35,507 lin.ft. 6-22 in. tile. About $263,276. Mid-West Eng. Co., Albert Lea, engrs. Noted June 23.

Minn., Stillwater—Ditches — Washington Co. having plans prepared for Judicial Ditches 4, 5 and 6. About $40,000. F. J. Armstrong, 215 Guardian Life Bldg., St. Paul, engr.

BIDS DESIRED

Ia., Harlan—Ditch—Until Aug. 15, by Shelby Co., Building Nishnabotne Drain 12, main ditch 16,300 lin. ft., involving 128,000 cu.yd. excav., lateral 1,000 ft. long. About $27,000. J. H. Mayne, Harlan, engr.

Mo., Benton—Excavation—Until Aug. 25, by Scott Co., Court House, Benton, for 102,000 cu.yd. earth excav. in D. D. 14. C. E. Swank, Charleston, engr.; advertised in this issue.

Mo., Benton—Excavation—Until Aug. 25, by Scott Co., Court House, for 791,000 cu. yd. earth and 400 cu.yd. rock excav. in D. D. 12. C. E. Swank, Charleston, engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Minn., Aitkin — Ditch — Aitkin Co. let contract building Co. Ditch 36 to D. A. Foley & Co., Aitkin, $26,596; Co. Ditch 33, to W. H. Small & Son, Aitkin, $10,525.

Streets and Roads

PROPOSED WORK

Massachusetts — State Highway Dept., Boston, canceled bids opened July 26, paying 9,600 ft. state highway in Holden, bituminous macadam. A. W. Deane, 413 Statehouse, engr. Noted July 14.

N. Y., Lancaster—City plans to improve Central Ave. and St. Mary St. About $92,500. A. R. Krehbiel, Lancaster, engr.

N. J., Gloucester—City Council soon receives bids paving, building sewers and water mains in various streets. About $45,000. Former bids rejected. A. W. Redfield, clk. Remington & Vosburgh, 6th and Market Sts., Camden, engrs.

W. Va., Clarksburg—City Council soon receives bids paving and laying 12 in. sewers in Main, North Chestnut, Mines and Walnut Sts., Hamil Ave. and Riverside Drive, etc. About $125,000. T. Lang, Clarksburg, engr.

North Carolina—State Highway Comn., Raleigh, plans to clear, grub, grade, drain and surface 17 mi. road from Topton to Almond, State Project 538, Macon and Swain Counties, sand-clay or gravel, about $115,000, 15.3 mi. road from Jones Co. line Jacksonville, State Project 539, Onslow Co., topsoil, $110,000; clear, grub, grade, drain, bridge and surface 21.9 mi. road from Jacksonville to Pender Co. line, State Project 540, Onslow Co., $130,000, 25 mi. road from Sampson Co. line to Castle Hayne, State Project 541, Pender Co., $150,000, 15 mi. road from Westfield to Danbury, State Project 542, Stokes Co., $105,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, and Federal Forest Serv. plan to grade, drain, surface and reconstruct 9 mi. forest from Mortimer to Globe, Caldwell Co. About $40,000. V. Rhodes, Lenoir, forest superv.

North Carolina—State Highway Comn., Raleigh, plans to grade, drain and surface 3 mi. State Project 621, from Lumberton to Red Springs-Maxton Rd., Robeson Co., concrete or some asphaltic type, $100,000; reconstruct 16 mi. road and bridges, on State Project 617, from Delway to Pender Co. line, $100,000. C. M. Upham, state highway engr.

S. C., Charleston—City election Oct. 15 to vote on $500,000 bonds to improve various streets. J. H. Dingle, Charleston, engr.

Fla., Brooksville—Comrs. Hernando Co. soon receive bids surfacing 20 mi. macadam road with asphalt, 9-16 ft. wide, 6/10 gal. to sq.yd. with force pump and covering with gravel, etc. About $60,000.

Fla., Gainesville—Alachua Co. having plans prepared building 40 mi. roads from here to Newberry, Hawthorne and Putnam Co., and from here to Waldo and Bradford Co., brick asphalt or concrete. About $500,000. H. B. West, care of Alachua Co. Comn., engr.

Fla., Inverness—Citrus Co. and State Highway Dept., plan election to vote on $600,000 bonds to build 45 mi. highway from Marion Co., via Holder, Hernando, Inverness and Floral City, brick, asphalt or concrete. C. A. Browne, c/o State Road Dept., Tallahassee, engr.

Alabama—State Highway Dept., Montgomery, having plans prepared grading, draining and surfacing 9.536 mi. Big Cove Rd., 4 mi. southeast of Huntsville to point 2 mi. northwest of Owens, Madison Co., waterbound macadam and gravel; 18.91 mi. Bankhead Highway, from Walker Co. line to Guin, Marion Co., chert or gravel, $180,000; 17.8 mi. road from Ft. Payne via Big Wills Valley to Collinsville, De Kalb Co., chert; 13.745 mi. Decatur-Moulton-Russellville Rd., between Moulton and Russellville, Lawrence Co., bituminous macadam; 17.41 mi. road from Ashland to Goodwater, Clay Co., chert or gravel. W. S. Keller, state highway engr.

Alabama—State Highway Dept., Montgomery, having plans prepared grading, draining and gravel surfacing 13.5 mi. road from Center Star to Elk River at Limestone Co. line, Lauderdale Co., and building one 120 ft. steel span with 150 lin.ft. concrete approach, one 90 ft. concrete girder, and other small structures on above road, about $160,000, grading, draining and surfacing 6 mi. road from Chickasaw through Prichard to Mobile, Mobile Co., concrete or other hard surface; having surveys made grading, draining and surfacing 8 mi. Jackson Highway from Sheffield through Tuscumbia to point 6 mi. south of Tuscumbia, Colbert Co., concrete or bituminous macadam and gravel. W. S. Keller, state highway engr.

Ohio—L. C. Herrick, dir. highways, Columbus, rejected bids opened July 22 improving roads in following counties:

Jefferson Co., Sect. "H-3" Steubenville-Cambridge Rd., 1.044 mi., grading, constructing drainage structures and paving with brick on rolled base.

Putnam Co., Sect. "M" Van Wert-Ottawa Rd., 2.865 mi., grading, constructing bridges and culverts and paving with Kentucky rck asphalt on waterbound macadam.

Wayne Co., Sect. "C" Millersburg-Worcester Rd., 1.42 mi., grading, constructing bridges and culverts and paving with monolithic brick, or concrete.

Jefferson Co., Sects. "D" and "E" Canton-Steubenville Rd., 4.02 mi., widening old road and paving with bituminous macadam. Noted July 28.

O., Akron—City plans to extend 1 mi. West Talmadge Ave. from Cuyahoga St. to Marriman Rd.; work includes grading, leveling roadbed and improving with macadam. About $200,000.

Ind., Indianapolis—City plans to improve 5,636 ft. Northwestern Ave. from Fall Creek to 32d St., 50 ft. wide, involving 19,711 sq.yd. asphalt, 2,600 sq.yd. concrete and 2,700 lin.ft. concrete gutter, about $61,588; 5,872 ft. Rockwood Ave. from Maple Rd. to 43d St., 30 ft. wide, 1,957 sq.ft. asphalt, 6,018 lin.ft. stone curbing, 6,173 lin.ft. brick gutter and 328 cu.yd. earth excav., $20,839; resurfacing 2,425 ft. Bway. from 21st to 25th Sts., 30 ft. wide, 7,421 ft. asphalt, $17,854; 2,377 ft. College Ave. from 21st to 25th St., 6,146 sq.yd. asphalt, 282 lin.ft. stone curbing and 5,022 lin.ft. brick gutter, $23,457. H. Klausmann, city engr.

Michigan—State Highway Dept., Lansing, plans to grade, drain and surface with base course macadam 5 mi. State Trunk Line Rd. 15-8, Keweenaw Co. F. F. Rodgers, state highway comr.

Michigan—State Highway Dept., Lansing, plans to grade, drain and surface 4½ mi. State Trunk Line Rd. 13-27, Sect. B., gravel. F. F. Rodgers, state highway comr.

Ia., Moville—City plans to pave curb and gutter 15 blocks, 20 to 80 ft. wide, involving 30,000 sq.yd. concrete. About $120,000. W. E. Buell & Co., Davidson Bldg., Sioux City, engrs.

Minn., Gilbert—City election soon to vote on $80,000 bonds to improve and pave various streets. A. W. Indinar, clk.

S. D., Salem—McCook Co. plans to grade 16.4 mi. highway between Salem and east county line. About $40,000. F. J. Murphy, co. aud.

Missouri—State Highway Dept., Jefferson City, plans to pave 5.44 mi. state road from Unionville westward, State Aid Project 20.49, Putnam Co., involving 32,745 cu.yd. earth excav., 1776 cu.yd. borrow, 10,810 cu.yd. per 100 ft. overhaul, 31.5 cu.yd. Class B and 69.3 cu.yd. Class C concrete masonry, etc. About $26,845.

Missouri—State Highway Comn., Jefferson City, plans to improve 1.76 mi. state road from Keytesville northward, State Aid Project S 20.59, involving 9,708 cu.yd. earth excav., 21,395 cu.yd. borrow, 1.2 cu.yd. Class "C," 3.9 cu.yd. Class "A" and 164.5 cu.yd. of Class "B" concrete masonry, 11,890 lb. reinforcing steel, etc. About $25,000. A. Graham, state highway engr.

Mo., Columbia—City plans to pave Short St., vertical fiber brick on concrete base. About $25,000. J. S. Bicknell, clk. Private plans.

Tex., Bastrop—Bastrop Co., having plans prepared grading, gravel surfacing and building concrete drainage structures on 8.7 mi. Austin-Houston Highway in McDade Rd. Dist., involving 27.66 cu. yd. 1:2:3½, 183.2 cu. yd. 1:2:4, 15.9 cu. yd. 1:2½:5 and 30.4 cu. yd. 1:3:6 concrete, 20,060 cu. yd. earth excav., 16,487 lb. reinforcing steel and 10,030.5 cu. yd. gravel. About $42,690. D. M. Puckett, Elgin, engr.

Tex., Canyon City—City rejected bids received July 11, improving various streets. Work will be readvertised. C. L. Hasie, Littlefield, engr. Noted July 28.

Tex., Comanche—Comanche Co., having plans prepared and soon receives bids grading gravel surfacing and building concrete and steel bridges and culverts on 8.03 mi. State Highway 22, involving 48,034.7 cu. yd. borrow excav., 1,140 cu. yd. 1:2:4 and 253 cu.yd. 1:2½:5 concrete, 46,400 lb. structural and 105,244 lb. reinforcing steel, 16,690 cu.yd. gravel surfacing 42,300 cu.yd earth excav. etc. About $108,700. L. D. Parks, DeLeon, Co. engr.

Tex., Dallas—City election Sept. 17, to vote on $1,250,000 bonds for permanent street improvements. G. D. Fairtrace, city engr.

Tex., Henderson—Rusk Co. had plans prepared gravel surfacing 8 mi. Highways 26 and 43. About $107,551. Hess & Skinner Co., Southwest Life Bldg., Dallas, engrs.

Tex., Waco—McLennan Co. election Aug. 20, to vote on $5,500,000 bonds to build highways and principal lateral roads, permanent type construction. M. Hannah, co. engr.

Tex., Waco—McLennan Co. having plans prepared and soon receives bids surfacing and bituminous topping 12.88 mi. Waco-Temple Rd., 16 ft. wide, (already graded and partly surfaced), involving 19,666 sq. yd. bituminous macadam, 9,833 gal. asphalt, 98,542 cu.yd. gravel, etc. About $25,500 including 10% for engineering and materials. M. Hannah, co engr.

Okla., Cherokee—City having plans prepared paving 12 blocks West Main St. and South Grand Ave. J. B. Bomford, city mgr.

Wash., Tacoma—City soon receives bids concrete paving 6,400 ft. East 34th St. from McKinley to Pacific Aves., and McKinley Ave. from 33rd to 40th Sts., 24 ft. wide. About $87,155. J. C. Manley, 503 City Hall, engr.

Ont., Aurora—Provincial Highway Dept., Parliament Bldgs., Toronto, soon receives bids grading subway under Grand Trunk Ry. tracks here, involving 100,000 cu.yd. excav. About $60,000. G. Hogarth, ch. engr.

Ont, Hamilton—City had plans prepared paving 6,000 sq.yd. Mary St. from King William to Cameron Sts., sheet asphalt on concrete base. About $26,000. City will probably purchase all materials and do work by day labor. E. R. Gray, city engr.

Ont., Hamilton—City having surveys made paving Sherman Ave. from King to Barton Sts., involving 9,000 sq. yd. sheet asphalt and 2,000 lin. ft. curb and gutter. About $35,000. E. R. Gray, city engr.

Ont., Oshawa—Town soon receives bids paving various streets, 900 ft. long, asphalt 30 ft. wide, brick 10 ft. wide on 6 in concrete base, with concrete curbs and gutters, cost $30,000; 2,200 sq.yd. macadam on Simcoe St. and 10,000 sq.yd. concrete on Celina, Arthur and Center Sts., $35,000. N. G. McDonald, Oshawa, engr.

Ont., Sudbury—Town plans to build 5 tarbound macadam roads, cost $18,085, concrete sidewalks on 10 streets, $10,525, involving 6,000 sq.yd. macadam and 35,000 sq.ft. concrete. W. J. Ross, town clk.

Ont., Thorold—Town soon receives bids building 6,000 sq.yd. concrete or bituminous pavement on concrete base, and 10,500 sq.yd. bituminous surface with curbs. About $35,000. F. N. Rutherford, 24 Queen St., St. Catherines, engr.

Ont., Toronto—City soon receives bids paving Moss Park Pl., McGregors Ave., Ardagh and Aziel Sts., asphalt; Hughes and Windmere Aves., bithulithic; concrete curbs on Aziel St., Glenlake, Hughes, McGregor and Windmere Aves.; grading Milverton Blvd., Caithness and Glebeholme Aves. About $75,000. R. C. Harris, city engr.

Ont., Watford—Town election Aug. 22 to vote on $50,000 bonds to pave Main St. Prices wanted on all materials. W. S. Fuller, Watford, engr.

BIDS DESIRED

N. Y., Long Island City—Until Aug. 10, by M. E. Connolly, pres. Queens Boro, regulating and paving Clermont Ave. from Grand St. to Hull Ave., 88th (Maple) Ave. from 104th to 107th Sts., McPherson St., from Hughes St. to Catalpa Ave., permanent sheet asphalt on concrete foundation; Manly St., from Thompson to Nelson Ave., permanent granite blocks on concrete foundation; regulating, grading and curbing Edison St. from 51st St. to Tiemann Ave., Linden St. from Prospect Ave. to Fresh Pond Rd., 93d Ave. (North St.) from 104th to 107th Sts., regulating, curbing and laying sidewalks where necessary 88th (Maple) Ave. from 104th to 107th Sts., regulating, resetting bluestone curb and sidewalk in Marion St. from Payntar to Freeman Aves., permanent asphalt pavement, on 6 in. concrete foundation, regulating, recurbing and

Streets and Roads (Continued)

reflagging Payntar Ave. from Vernon Ave. to Sherman St., preliminary second-hand granite block pavement on sand foundation; regulating and paving for width of 25 ft., centrally located in Borden Ave. from Van Dam St. to Gale St. and for width of 24 ft., centrally located, also gutters in Gale St. from Borden to Greenpoint Aves.; regulating and grading, removing, furnishing and planting trees in Hull Ave. from Marabel Ave. to property line about 400 ft. westerly thereof; regulating and grading Gates Ave. between Prospect Ave. and Fresh Pond Rd.

N. Y., New York—Until Aug. 9, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., regulating and repaving 2d Ave. (West Side) curb to rail from 3d St. to 4th St., asphalt concrete on resisting concrete foundation.

N. Y., New York—Until Aug. 10, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., Bronx, regulating grading, setting curb, laying sidewalks and crosswalks building inlets, receiving basins, drains, culverts, approaches and guard rails in Clarke Pl. from Jerome to Inwood Aves., bituminous concrete on concrete foundation; constructing sewers and appurtenances in West Kingsbridge Rd. between existing sewer west of Webb Ave. and Webb Ave., and in Webb Ave. between West Kingsbridge Rd. and summit north of West 195th St., Eames Pl. between Webb Ave. and Clafin Ave., West 197th St. and Summit southerly therefrom, and in West 195th St. between Sedgwick and Webb Aves.

Delaware—Until Aug. 24, by State Highway Dept., Dover, building 0.623 mi. Contr. 40. C. M. Upham, ch. engr.; advertised in this issue.

Virginia—Until Aug. 11, by Assistant Highway Commissioner, 116 South 3d St., Richmond, building 7.23 mi. Virginia Project 101, State Rd. 17, between Healing Springs and Falling Springs, waterbound macadam or bituminous macadam, Bath and Alleghany Counties; 1.47 mi. Virginia Project 144, State Rd. 12, between Danville and Sandy River, concrete, Pittsylvania Co. C. E. Bolling, highway engr.

Louisiana—Until Aug. 8, by State Highway Dept., New Orleans, building 5 mi. Sect. A, Leesville-Many Highway, 5 mi. Sect. A Leesville-Alexandria Highway, 5 mi. Sect A Leesville-DeRidder Highway, 5 mi. Sect. A Leesville-Texas Highway, all foregoing in Vernon Parish; 3.05 mi. Bossier City-Cpushatta Highway, Bossier Parish. D. Buie, ch. engr.

Mich., Menominee—Until Aug. 8, by State Highway Dept. at office Bd. Rd. Comrs. Menominee Co., grading, draining and surfacing 2.701 mi. State Trunk Line Rd. 15-11, involving 17,537 cu.yd. excav., 3,000 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Menominee—Until Aug. 8, by State Highway Dept. at office Bd. Rd. Comrs. Menominee Co., grading, draining and surfacing 0.912 mi. State Trunk Line Rd. 15-2, Sect. C-2, involving 650 cu.yd. excav., 10,640 sq.yd. concrete. F. F. Rodgers, Lansing, state highway comr.

Mich., Newberry—Until Aug. 9, by State Highway Dept., at office Bd. Rd. Comrs. Luce Co. (Newberry), grading and draining State Trunk Line Rd. 25-2, Sects. A and B, in Luce and Chippewa Counties, involving 46 208 cu.yd. excav. F. F. Rodgers, Lansing, state highway comr.

Mich., Sault Ste. Marie—Until Aug. 10, by State Highway Dept. at office Bd. Rd. Comrs. Chippewa Co., grading, draining and surfacing 4.777 mi. State Trunk Line Rd., involving 22,211 cu.yd. excav., 44,717 sq.yd. waterbound macadam. F. F. Rodgers, Lansing, state highway comr.

Mich., Sault Ste. Marie—Until Aug. 10, by State Highway Dept., at office Bd. Rd. Comrs. Chippewa Co., grading, draining and surfacing 3.441 mi. State Trunk Line Rd. 48-3, involving 17,858 cu.yd. excav., 32,305 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Wisconsin—Until Aug. 10, by State Highway Comn., at div. office 5, Batavian Natl. Bank Bldg., La Crosse, surfacing 1.18 mi. Northfield-Hixton Rd., Federal Aid Project 213, Jackson Co., involving 5.46 acres clearing and grubbing, 11,967 cu.yd. earth, 3,668 cu.yd. solid rock and 755 cu.yd. loose rock excav., 177.1 cu.yd. Class "A" concrete, 11,591 sq.yd. shale surfacing, etc

Wis., Milwaukee—Until Aug. 8, by Comrs. Pub. Wks., paving 8 alleys, involving 8,868 sq.yd. concrete and 3,804 cu.yd. grading. Cost between $21,000 and $25,000. G. Staal, city engr.

Ia., Algona—Until Aug. 9, by Algona Co., grading and draining 24.07 mi. road. About $200,000. D. L. Leffert, co. engr.

Ia., Des Moines—Until Aug. 9, by city, paving West 16th St., brick on concrete base, cost $25 000; West 5th St., brick or asphalt on concrete base, $25,000; Mulberry St., No. vitr brick, sheet asphalt, asphaltic concrete or bithulithic, $25,000; paving and resurfacing West Locust St., brick or asphalt, $25,000. K. A. Kastberg, city engr. Noted July 21 and 28.

Minn., Anoka—Until Aug. 23, by Anoka Co., clearing, grading, etc., State Rd. 3, Job 2002, involving 6 acres clearing and grubbing, 74,126 cu.yd. excav., 188,280 cu.yd. overhaul, 7,224 cu.yd. hand ditch, etc. About $30,000. H. B. Childs, Anoka, engr.

Minn., Brainerd—Until Aug. 8, by city, grading and paving Front St. from 4th St., S to 8th St., S., involving 9,000 sq.yd. concrete. About $30,000. W. T. Campbell, city engr.

Minn., Brainerd—Until Aug. 20, by Crow Wing Co., gravel surfacing, Job 2004, State Rd. 3, Div. A, involving 5,000 cu.yd. screened gravel; Job 2105, State Rd. 1, Div. A, 4 acres clearing and grubbing, 30,000 cu.yd. excav., 8,000 cu.yd. overhaul; Job 1910, State Rd. 8, Div. A, 6,000 cu. yd. gravel surfacing, unscreened; Job 1908, State Rd. 1, Div. B, 3,000 cu.yd. unscreened gravel. About $27,000. C. L. Wott, Brainerd, engr.

Minn., Grand Rapids—Until Aug. 9, by city, paving, curbing and guttering about 8 blocks 4th St. About $30,000. F. A. McVicar, clk. Private plans.

Minn., St. Paul—Until Aug. 8, by city, paving an extra width of 4 ft. (additional to 20 ft. wide paving already awarded) on 4.75 mi. Point Douglas Rd. from Burns Ave. to south city limits, (1) furnishing both materials and labor, (2) furnishing materials only; work to be done by force account. About $36,000. O. Claussen, City Hall, city engr. Noted July 21.

Minn., Worthington—Until Aug. 23, by Nobles Co., gravel surfacing Federal Aid Project 45, State Roads 1 and 7, 8 mi. Sect. A from here to Brewster, invloving 13,760 cu.yd. gravel and 46,300 lin. ft. shaping and compacting, etc.; 10 mi. Sect. B from here, to Bigelow, 32,600 cu.yd. gravel and 54,500 lin. ft. shaping and compacting, etc. About $40,000. N. S. Thayer, Worthington, engr.

Kan., Hiawatha—Until Aug. 31 by Comrs. Brown Co., grading and draining 6.8 mi. Capitol Highway, 26 ft. wide, Federal Aid Project 88. About $40,000. S. K. McCray Hiawatha, engr.

Kan., Ottawa—Until Sept. 2, by Comrs. Franklin Co., grading, draining, and building brick or concrete slab on 1.514 mi. various roads. About $75,000. M. E. Alderman, Co., engr.

Kan., Troy—Until Aug. 30, by Comrs. Doniphan Co., grading, draining and building concrete slab on 2.5 mi. Pikes Peak Highway, 18 ft. wide, Federal Aid Project 87. About $95,000. J. D. Parker, Troy, engr.

Kan., Wellington—Until Aug. 26, by Comrs. Sumner Co., grading and draining 16.728 mi. Meridian Trail, Sects. L-M-J-K-R, 18 ft. radway, Federal Aid Project 35. About $100,000. J. W. Mavity, Wellington engr.

S. D., Aberdeen—Until Aug. 9, by city, c/o L. W. Kohlhoff, aud., paving various streets, asphalt or vitr. brick on concrete base. About $25,000. F. LeCocq, Aberdeen, engr.

S. C., Camden—Until Aug. 15, by Kershaw Co. grading and surfacing 11 mi. Camden-Lancaster Rd., involving 15,000 yd. excav., and 20,000 cu.yd. sand clay surfacing. J. D. Gregory, Camden, engr.

Missouri—Until Aug. 18, by State Highway Dept., Bolivar, building 4.94 mi. state road from Bolivar eastward and westward, State Aid Project S. 20.71, involving 25,549 cu.yd. earth, 3,242 cu.yd. rock and 5,129 cu.yd. borrow excav., 2,604 cu.yd. Class B and 74 cu.yd. Class C concrete masonry, etc. A. Grahm, Jefferson City, state highway engr.

Missouri—Until Aug. 17, by State Highway Bd., Richmond, building 1.77 mi. state road from Richmond northward, State Aid Project S 20.65, Ray Co. About $27,844. A. Grahm, Jefferson City, State highway engr. Noted July 28.

Mo., Excelsior Springs—Until Aug. 11, by city, c/o W. Bales, clk., paving various streets, vitr. brick on concrete base. About $25,000. C. A. Stockley, Graphic Arts Bldg., Kansas City, engr.

Mo., Perryville—Until Aug. 9, by Perry Co., grading and draining Project 20.67. About $25,545. Private plans. M. E Murray, clk.

Mo., St. Joseph—Until Aug. 9, by city, reconstructing present macadam pavement on 12th St. and aplying 2 coats asphaltic cement, and renewing curb and gutter. About $25,000. G. E. Jackson, clk. Private plans.

Mo., Trenton—Until Aug. 9, by Groundy Co., grading and draining Project 20.53. About $29,826. A. C. Lingley, clk. Private plans.

Mo., Warrentown—Until Aug. 9, by Warren Co., grading and draining Project 20.66. About $25,174. H. D. Griffith, clk. Private plans.

Tex., Cameron—Until Aug. 12, by W. C. Gellis, judge Milam Co., grading, gravel surfacing and draining 1.85 mi. State Highway 44, involving 4,364 cu.yd. borrow, 3,879 cu.yd. earth and 175 cu.yd. structural excav., 218.76 cu.yd. 1:2:4 and 19.5 cu.yd. 1:2½:5 concrete, 18,453 lb. reinforcing steel, 4,513 cu.yd. gravel. Cost $27,835 including 10 per cent for enginerring and contingencies. A. F. Mitchell, Cameron, co. engr.

Tex., Groesbeck—Until Aug. 8, by H. F. Kirby, Judge Limestone Co., gravel surfacing 16 mi. Highway 7, Sect. B and D, Federal Aid Project 137. Gravel and rock furnished by county. About $30,000. F. P. Holt, co. engr.

Tex., Palo Pinto—Until Aug. 15, by Palo Pinto Co. grading and surfacing Rd. 2, macadam. About $25,000. M. V. Smith, Palo Pinto, engr.

Tex., Paris—Until Aug. 9, by W. L. Hutchison, judge Lamar Co., graveling and paving 43.6 mi. Highways 5 and 19, involving 3,311 cu.yd. concrete pavement, 7,890 lb. reinforcing steel, 70.8 cu.yd. Class "A" and 42 cu.yd. Class "B" concrete, 92,632 cu.yd. gravel, etc. W. M. Fooshe, Paris, engr.

Tex., Richmond—Until Aug. 10, by Ft. Bend Co. grading and gravel surfacing Highway 36. About $100,000. L. R. Gurley, Richmond, engr.

Tex., Richmond—Until Aug. 10, by C. D. Meyers, judge Ft. Bend Co., gravel surfacing, bituminous topping and draining 13.01 mi. Highway 36 from Rosenberg to Austin Co. line, involving 71,000 gal. asphalt 3,000 cu.yd. cover material, 99,293 cu.yd. gravel. About $95,000. L. R. Gurley, co. engr.

Nova Scotia—Until Aug. 12, by Provincial Highway Bd., Halifax, building 6 mi. waterbound macadam road from Sydney towards East Bay. About $37,500. W. A. Hendry, Halifax, ch. engr.

Que., Montreal—Until Aug. 15, by F. S. Williamson, 103 St. Francis Xavier St., building 2 mi. driveway from Mount Royal Ave. to Cote des Naiges Rd., 20 ft. wide, bituminous macadam. Above project to be built by public subscription, and presented to city. About $500,000.

Ont., Toronto—Until Aug. 8, by T. L. Church, chn. Bd. Control building 6,000 sq.yd. asphalt pavements on Beaver, Currie, Denison and Harvie Aves., 1,000 sq.yd. asphaltic concrete pavement on Glendale Ave. and Walmer Rd., 4,500 sq.yd. concrete pavements on Chaplin Crescent, Imperial St., 1st Lane, Colin and Lawton Aves., bithulithic pavements on Glendonwynne Rd., 30,000 sq.yd. asphalt surface on Dundas St., grading Small St., concrete curbing on Glendonwynne Rd., Beaver and Glendale Aves., concrete sidewalks on Annette and Russell Sts., Tyrrel and Wychwood Aves. About

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Saco—City let contract paving various streets granite block, on concrete base, to Hassam Paving Co., 17 Federal St., Worcester, Mass. Cost to exceed $25,000.

Streets and Roads (continued)

★Massachusetts—State Highway Comn., Boston, let contract paving 16,060 ft. state highway in Hardwick, 18 ft. wide, bituminous macadam, to Lane Constr. Co., 37 Colony St., Meriden, Conn., $64,000; 7,200 ft. in Littleton, 18 ft. wide, bituminous macadam, to T. J. McCue, Watertown, N. Y., $62,813; 2,750 ft. in Plympton, 18 ft. wide, bituminous macadam, to M. F. Roach, East Bridgewater, Mass., $8,830; 7,650 ft. in North Adams, 21 ft. wide, rein.-con., to F. T. Ley Co., 409 Main St., Springfield, $70,624. Noted July 14.

Massachusetts—State Highway Dept., Boston, opened bids July 26 paving 7,300 lin. ft. highway in Pembroke, 18 ft. wide, bituminous concrete, from Atwood Thomas Constr. Co., Middleboro, $23,832; J. W. O'Connell, 73 Tremont St., Boston, $23,969; R. W. Newell Co., South Main St., Uxbridge, $24,432. Noted July 14.

★Mass., Ware—City will lay cement concrete pavement on portions of East and West Sts. About $40,000. Work will be done by day labor. J. Nelligan, Ware, engr.

Conn., New Haven—Bureau of Eng. received bids July 28, paving East, Bridge and Chapel Sts., involving 10,020 sq.yd. 1:2:4 concrete, from G. W. Blakeslee & Sons, 58 Waverly St., $30,669, Natl. Concrete Co., New Haven, $31,530, Conn. Natl. Pavements Inc., 147 Orange St., $34,982; East and Bridge Sts., involving 8,740 sq.yd. asphalt, from Conn. Natl. Pavements Inc., 147 Orange St., $40,281, C. W. Blakeslee & Sons, 58 Waverly St., $40,621; Chapel St. from near Mill River to near Ferry St. 5,820 sq.yd. vitr. brick on new base, from Conn. Natl. Pavements Inc., 147 Orange St., $28,111, C. W. Blakeslee & Sons, 58 Waverly St., $28,782, R. D. Daley Co., 6 Church St., $32,013. Noted July 21.

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids July 27, regulating and grading (1) Delamere Pl., (East 23rd St.) from Ave. N. to Kings Highway, (2) 89th St., regulating, curbing and laying sidewalks on (3) Delamere Pl. (East 23rd St.) from Ave. N to Kings Highway; regulating, grading, layin sidewalks and paving (4) Ave. L, preliminary bituminous macadam; regulating and paving (5) Lincoln Rd. and East New York Ave., permanent asphalt on 6 in. concrete foundation; regulating, grading, curbing and laying sidewalks (7) Ave. S and E, regulating and laying sidewalks where necessary on both sides (8) 4th Ave; regulating, grading, curbing and laying sidewalks (9) 18th Ave. from Ocean Parkway to Coney Island Ave.; regulating and paving (10) 18th Ave. from Ocean Parkway to Coney Island Ave., (11) 79th St., permanent asphalt on 6 in. concrete foundation, regulating, resetting curb where necessary (12) 77th St., permanent asphalt on 6 in. concrete foundation; regulating and curbing (13) 89th St. from Colonial Rd. to Narrows Ave.; regulating and repaving (14) Gold and Johnson Sts., (15) Carrol St., (16) Clinton St., (17) Warehouse Ave., asphalt on present concrete foundation; regulating, grading, curbing, laying sidewalks and paving (18) Sheepshead Bay Rd. from

E. Bismice, 466 East 34th St., (1) $2,630.

Castle Bros., Inc., Johnson Pl., (1) $2,857, (3) $7,115, (9) $9,220.

A. C. Corbi, (1) $2,727.

F. Persicano, 513 Midwood St. (3) $7,115.

Simonelli & Son, Inc., 70 Spring St., New York City, (3) $7,115, (7) $1,640, (8) $2,747, (9) $9,899.

M. J. O'Hara, 557 3rd St., (4) $4,475, (18) $3,860.

C. Gallagher, 412 Academy St., (4) $5,672, (18) $5,509.

Cranford Co., 52 9th St., (5) $11,956, (6) $15,308, (10) $22,495, (11) $8,631, (12) $9,774, (14) $9,478, (15) $10,532.

Sicilian Asphalt Paving Co., 41 Park Row, New York City, (5) $13,430, (14) $9,053, (15) $10,154, (16) $2,608.

Borough Asphalt Co., 1301 Metropolitan Ave., (5) $12,516, (6) $16,069, (10) $23,753, (11) $9,117, (12) $10,424, (14) $8,946, (15) $10,218, (16) $2,658, (17) $9,641.

Caponi Cont. Co., 1320 65th St., (2) $1,850, (7) $1,618, (13) $1,492.

A. E. Castle, 3313 Tilden Ave., (7) $1,662, (8) $2,640.

Uvalde Asphalt Paving Co., Metropolitan Ave., (6) $17,040, (10) $25,239, (12) $10,861.

Pasalino Contg. Co., (9) $10,049.

L. Mangieri, 13 East 148th St., New York City, (2) $4,363.

B. Turecamo Contg. Co., Inc., 8796 Bay 12th St., (2) $4,714, (13) $1,568.

T. Walsh, 40 Buckingham Rd., (13) $1,613. Noted July 21.

★N. Y., New York—H. H. Curran, pres. Manhattan Boro., Municipal Bldg., let contract regulating and repairing Hancock St., etc., and widening and repairing 36th St., etc., to Cleveland-Trinidad Paving Co., Flushing, L. I., $9,303 and $44 575 respectively; 37th St., etc., to Sicilian Asphalt Paving Co., 41 Park Row, $49,218. Noted July 21.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Aug. 1, widening and repaving 181st St. from Amsterdam to St. Nicholas Aves., asphalt block on concrete foundation from Regan Towers Co., 127 West 121st St., $24,550; Hastings Pavement Co., 25 Broad St., $31,196; P. J. Kearns Contg. Co., 2306 Creston Ave., $33 405. Noted July 28.

N. Y., New York—Park Bd. opened bids received July 21, repaving West Drive System south of 102d St. in Central Park, sheet asphalt on existing concrete foundation, from W. J. Fitzgerald, 547 West 45th St., $58,180; Brusstar Constr., Inc., Harlem River and 150th St., $62,255; C. D. Beckwith, 301 West 108th St., $63,005. Noted July 14.

N. Y., Syracuse—City received bids paving Allen St. from East Genesee to Euclid Ave., involving 14,355 sq.yd. (a) vitr. brick, (b) asphalt, from J. H. Gullup, Union Bldg., (a) $51,209, (b) $41,452, G. B. Dickison, Union Bldg., (a) $57,423, (b) $46,559; F. J. Baker, University Bldg., (a) $59,104, (b) $49,335.

★New Jersey—State Highway Dept., Broad St. Bank Bldg., Trenton, let contract building Route 12, Sect. 1, beginning at Pine Brook and ending at Parsippany, Morris Co., in municipalities of Montville and Hanover, also Bridges 84, M.P. 9.3-E, I beam 30 ft. clear span; 86, M.P. 8.9-E, I beam four 28 ft. spans; 88, M.P. 7.9-E, steel plate girder 70 ft. span; N, M.P. 6.2-E, I beam 15 ft. 6 in. span; all above to have concrete floor slabs and concrete foundations; also culverts M.P. 5.3-E and M.P. 4.7-E rein-con. boxes with wing walls for roadway having 30 ft. width, to Dover Boiler Wks., 90 East Dickerson St., Dover, $65,694. Noted July 21.

★Pennsylvania—State Highway Dept., Harrisburg, let contract building Route 281, Bucks Co., to McNichol Paving & Constr. Co., 1923 Cherry St., Phila., $346-555. Noted June 30.

★Pa., Nanty-Glo—Cambria Co. let contract grading, paving and curbing 1,800 ft. Chestnut, Roverts and Lloyd Sts., vitr. brick on concrete base, concrete curbs, to J. Elder, Ebensburg, $38,523. Noted July 21.

Pa., Phila.—City received bids paving (1) Germantown Ave. from Chelten Ave. to Walnut Lane, (2) Front St. from Laurel to Palmer Sts., and Palmer St. from Front to Delaware Aves., (3) Point Breeze Ave. from Dickinson to 24th Sts., (4) Grays Ferry Ave. from South to Federal Sts., (5) 49th St. from Larchwood to Paschall Sts., (6) Robbins St. from Torresdale Ave. to Roosevelt Blvd., (7) Spring Garden St. from Broad to 12th Sts., (8) 7th St. from Roosevelt Blvd. to Ruscomb St., (9) Stenton Ave. from Ognotz Ave. to Limekiln Pike (10) Limekiln Pike from Godfrey to Chelten Aves., (11) Lawrence St. from Olney to Chew Sts., Olney St. from 3d to 5th Sts., (12) 12th St. from Clearfield to Lippincott Sts., from Eastern Paving Co., Colonial Trust Bldg., (1) $37,525, (4) $62,107, (7) $29,271, (8) $22,117, (9) $19,217, (10) $17,711, (11) $14,415, (12) $2,196; M. J. McCrudden, Real Estate Trust Bldg., (1) $39,743, (2) $69,827 (6) $53,211; Fish-Rutherford Co. Inc., Lincoln Bldg. (1) $40,173; Ryan Constr. Co., Real Estate Trust Bldg., (2) $63,228; Union Paving Co., 30th and Locust Sts., (2) $72,183, (5) $90,711, (7) $28,336; Lolove & Lewis, Phila., (3) $56,798; Cunningham & Murray, 1345 Arch St., (3) $58,400; Achione & Canuso, 13 Broad St., (3) $59,682, (4) $64,198; Mack Paving Co., Nicetown Lane and C St., (4) $62,355, (5) $90,942, (8) $23,942, (9) $19 893, (10) $21,552, (11) $15,671, (12) $3,269; Barber Asphalt Paving Co., Land Title Bldg., (5) $91,432, (8) $19,826, (9) $16,628, (10) $19,758, (11) $13,749 (12) $2,170; Curtis Bros., Longshore St. (6) $52,793; E. J. Boas, 201 North Broad St., (16) $54,212.

★Pa., Phila.—City let contract repaving Stanton and 65th Aves., redressed granite block, to Eastern Paving Co., Colonial Trust Bldg., $53,350.

Pa., Pittsburgh—City received bids repaving East St. from Royal to Creek Sts., from Booth & Flinn, Ltd., 1942 Forbes St., $42,544; J. H. McQuade Sons Co., Bakewell Bldg., $42,802; M. O'Herron Co., 1st and McKean Sts., $44,086. Noted July 14.

★N. C., Greenville—City let contract paving 9½ mi. Greenville-Ayde Rd., concrete, to Cheatwood-Driscoll Co., Richmond, Va. About $250,000.

★South Carolina—State Highway Dept., Columbia, let contract constructing 10 mi. road in Saluda Co., to C. E. Teague, Aiken, about $34,000; 20 mi. road from Orangeburg to Bowman, Orangeburg Co., to J. K. Mayfield, Bamberg, $65,000.

★S. C., Abbeville—Abbeville Co. let contract sand-clay surfacing 16 mi. Abbeville-Anderson Rd., to Elliott & Son, Abbeville, $47,652; 19 mi. Abbeville-Honea Path Rd., to R. P. Kyle, Charleston, $57,512.

S. C., Camden—Comrs. Kershaw Co., received low bid, July 28, grading and surfacing 9 mi. Camden-Bishopville Rd., from Caughman Constr Co., Columbia. About $25,000. Noted July 14.

★S. C., Orangeburg—Orangeburg Co. let contract surfacing 30 mi. Orangeburg-Bowman Rd., sand clay, to J. K. Mayfield, Denmark, $64,294.

★Fla., Bronson—Levy Co. let contract laying 150,000 sq.yd. crushed rock base on road from Alachua Co. to Marion Co., via Williston, to Mickler & McLeod, Tampa. $110,600. State will at later date put on top of asphalt or concrete.

★Fla., Haines City—City let contract paving 2 mi. various streets, involving 20,000 sq.yd. asphalt block, to Mickler & McLeod, Tampa. About $63,000.

★Alabama—State Highway Dept., Montgomery, let contract grading, draining and surfacing with loose gravel, 9.59 mi. Montgomery-Birmingham Rd. from Jasper to Warrior River, to J. W. Gwin, Hamilton Sta., Birmingham, $125,072; 25.22 mi. road from Northport to New Lexington, to Thompson & Donahoo, Eutaw, $222,914. Noted July 7.

★Louisiana—State Highway Dept., New Orleans, let contract building 5.98 mi. Sect. B Alexandria-Oberlin Highway, Rapides Parish, to Singletary & Greer, Oakdale, $28,823.

★Kentucky—State Highway Dept., Frakfort, let contract shaping and draining 10.2 mi. Louisville-Paducah R. from Baskett Station Cinder Rd. Sta. 7282 plus 00 to Davies Co. line Sta. 6740 plus 18, Henderson Co., to Ellis & Smithers, Owensboro, $77,259; 1.5 m. Pineville-Barboursville Rr., from Knox Co. line Sta. 603 plus 88, toward Pineville to Sta. 683 plus 74.7, Bell Co., to Vermillion & Mitchell, Barboursville, $24,297; shaping, draining and surfacing with bituminous macadam, penetration type, slag base, 5.1 mi. Catlettsburg-Grayson Rd., from Cannonsburg, Sta. 0 plus 00 to Carter Co. line Sta. 272 plus 53, to Federal Constr. Co., Winchester, $222,067. Noted June 30.

Ky., Beattyville—City Council received bids grading, shaping, and surfacing with concrete and macadam, 17,762 sq.yd. Main, Lumber, Grand, Center, Walnut, Locust, Vine and Elm Sts., from Coddell-Byars Constr. Co., Winchester, $38,656; P. C. Beatty, Lexington, $47,084; E. K. Newell Co., Maysville, $3.05 per sq.yd. with concrete. Noted June 30.

★Ohio—L. C. Herrick, dir. Highways, Columbus, let contracts building roads in following counties:

Ashland Co., Sect. "A" Mansfield-Ashland Rd., 1.85 mi., grading, constructing bridges and culverts and paving with monolithic brick, to F. F. Mann & Sons, Ashlnd, $79,451.

Sect. "B" Mansfield-Ashland Rd., 3.523 mi., grading and constructing bridges and culverts only, to J. F. Connors, 3126 West 86th St., Cleveland, $62,243.

Ashtabula Co., Sect. "C" Youngstown-Conneaut Rd., 4.997 mi., grading, constructing bridges and culverts and paving with bituminous macadam (T-1), to Gray Bros., Youngstown, $175,822.

Streets and Roads (continued)

Coshocton Co., Sect. "West Fafayette" Newcomerstown-Coshocton Rd., 0.915 mi., grading and paving with monolithic brick, to Henderson Bros., Coshocton, $38,047.

Crawford Co., Sect. "M." "N" Marion-Bucyrus Rd., 6.705 mi., grading, constructing bridges and culverts and paving with brick, to E. A. Freshwater, Painesville, $297,108.

Delaware Co., Sect. "A-1" Delaware-Marysville Rd., 1.176 mi., grading, constructing bridges and culverts and paving with bituminous macadam (T-1), to J. L. Edwards, Sunbury, $32,196.

Erie Co., Sect. "B" Lima-Sandusky Rd., 2.573 mi., grading, constructing bridges and culverts and paving with concrete, to Homeberger-Wager Eng. & Constr. Co., Sandusky, $97.090.

Sect. "Q" Sandusky-Norwalk Rd., 0.42 mi., grading, constructing drainage structures and paving with concrete and brick, to A. J. Baltes, Norwalk, $19,639.

Fulton Co., Sect. "Delta" Toledo-Wauseon Rd., 0.451 mi., grading, constructing drainage structure and paving with 1 course rein.-con., to LaBriteaux & Hayes, Toledo, $25,506.

Harding Co., Sect. "D" Marysville-Kenton Rd., 1.94 mi., Sect. Mt. Victory, Marysville-Kenton Rd., 0.645 mi., grading, constructing drainage structures and paving with bituminous macadam (A-1), to J. Herzog, Forest, $55,515 and $25,506 respectively.

Harrison Co., Sect. "R" Cadiz-Dennison Rd., 3.765 mi., grading, constructing bridges and culverts and paving with bituminous macadam, on rolled base, to Kane Bros. & Seaborne, Youngstown, $139,026.

Henry Co., Sect. "B-1" Toledo-Napolein Rd., 5.287 mi., grading an constructing drainage structures only, to Mangerink Bros., Napoleon, $24,113.

Hocking Co., Sect. "A-2" Logan-McArthur Rd., 2.623 mi., grading and constructing bridges and culverts only, to Young Eng. Co., Engineers Bldg., Cleveland, $37,067.

Holmes Co., Sect. "L-1" Mansfield-Millersburg Rd., 2.382 mi., grading and constructing drainage structures, to Young Eng. Co., Engrs. Bldg., Cleveland, $22,644.

Lucas Co., Sect. "C" Waterville-Swanton Rd. 3.513 mi. grading, constructing bridges and culverts and paving with two-course waterbound macadam, to J. A. Coon, Swanton, $76,263.

Morgan Co., Sect. "K-1" McConnellsville-Caldwell Rd., 1.637 mi., grading, constructing drainage structures and paving with bituminous macadam (T-1), to L. H. Nixon, Nelsonville, $60,532.

Paulding Co., Sect. "J" Payne-Hicksville Rd., 3.817 mi., grading, constructing bridges and culverts and paving with plain concrete, to Newell & Davoust, Defiance, $115.002.

Ross Co., Sect. "I-1" Chillicothe-Jackson Rd., 0.462 mi., grading, constructing bridges and culverts and paving with brick, to W. H. Ringwald Co., Chillicothe, $20,971.

Sandusky Co., Sect. "D-1" Fremont-Bowling Green Rd., 0.42 mi., grading, constructing bridges and culverts and paving with brick, to Modern Constr. Co., Fremont, $22,147.

Tuscarawas Co., Sect. "M" Newcomerstown-Uhrischsville Rd., 3.342 mi., grading, constructing bridges and culverts and paving with monolithic brick, to E. A. Freshwater, Painesville, $140,207.

Williams Co., Sect. "N-2" West Unity-Montpelier Rd., 0.891 mi., grading, constructing bridges and culverts and paving with bituminous macadam (A-1), to J. A. Elder, Bryan, $27,584.

Sect. "West Unity" West Unity-Montpelier Rd., grading and paving with bituminous macadam (T-1), to J. A. Elder, Bryan, $1,742.

Hamilton Co., Sect. "B" Harrison Pike, grading roadway and paving with bitoslag over fills, to Scully Bros., Harrison Pike, Cincinnati, $19,015.

Sect. "A" Carthage-Hamilton Rd., constructing crib diversion wall in west fork of Mill Creek, to Iliff Bros., London, $3,796.

Henry Co., Sect. "B" Bryan-Napoleon Rd., 1.44 mi., surfacing with 5 in. waterbound macadam, to Stone & Heil, Lima, $16,739.

Ottawa Co., Sect. "H" Toledo-Elmore Rd., 0.99 mi., surfacing with rein-concrete, to Barnes & Tabbert, Rocky Ridge, $21,912.

Pike Co., Sect. "B" Columbus-Portsmouth Rd., 0.812 mi., grading, constructing curb and paving with concrete, to Anderson Brown, Chillicothe, $28,615.

Richland Co., Sect. "G" and "K-1" Mansfield-Galion Rd., 2.99 mi., repairing and resurfacing with waterbound macadam, to J. Herzog, Forest, $43,454.

Stark Co., Sect. "A" Canton-Canal Dover Rd., 1.48 mi., resurfacing with brick, to Burke Constr. Co., Canton, $49,852.

Hocking Co., Sect. "A" Logan-Athens Rd., constructing concrete bridge over Old Town Creek, to E. N. Turner, Logan, $9,873.

Montgomery Co., Sect. "F-1" Dayton-Troy Rd., repairing steel bridge, to H. A. MacDonald, Norwalk, $7,342.

Muskingum Co., Sect. "R" National Rd., constructing rein.-con. bridge, to D. L. Paul, Zanesville, $12,469.

Putnam Co., Sect. "Ottawa" Lima-Ottawa Rd., repairing bridge, to H. A. MacDonald, Norwalk, $5,892.

Logan Co., Sect. "B" Bellefontaine-Marysville Rd., constructing concrete beam bridge, to Bennett & Drum, Celina, $6,224.

Fulton Co., Sect. "J" Toledo-Angola Rd., constructing steel bridge, to LaBriteaux & Hayes, Toledo, $22,829.

Columbiana Co., Sect. "B" Ohio River Rd., constructing culvert, to Allison Harrison Co., East Liverpool, $8,270. Noted July 28.

★O., Akron—Summit Co. let contract grading northern approach of North Hill viaduct, 1,400 ft. long, 100 ft. wide, to Kahl Bros. 13004 Woodland St., Cleveland, $30,525.

★O., Canton—Stark Co. let contract paving 5,600 ft. Georgetown Rd. extension, 16 ft. wide, brick on slag base, concrete curb and asphalt filler, to Natl. Asphalt Paving Co., Canton, $52,933; 6,886 ft. Massillon-Akron Rd. from McDonaldsonsville to Summit Co. line, 16 ft. wide, brick on gravel base, bituminous filler, to A. F. Wendling Co., Massillon, $47,652.

O., Cleveland—Riverside Cementery received bids grading and paving at cementery, involving 2860 cu.yd. excav., 12,960 sq.yd. tarvia asphalt, from Spencer Bros., 2443 Woodhill Rd., $53,000; Cleveland Trinidad Paving Co., The Arcade, $55,000.

O., Garfield Heights (Garfield P. O.)—Village received bids paving East 85th St., involving 79,400 sq.yd. pavement, 4,560 cu. yd. excav., 6,100 ft. stone curbing, etc., from Cleveland Trinidad Paving Co., The Arcade, Cleveland, asphalt, $53,067; Enterprise Paving Constr. Co., 8444 Bway., Cleveland, brick, $56,322.

★O. Steubenville—City let contract improving Washington St., to Federal Asphalt Co., Hamilton, $28,716.

★Mich., Adrian—State Highway Dept. at office Bd. Rd. Comrs. Lenawee Co., let contract grading, draining and surfacing 0.782 mi. State Trunk Line Rd. 34-1, Sect. A, to Meredith & McVaugh, Tecumseh, $25,867; 1.149 mi. State Trunk Line Rd. 34-1, Sect. C, to C. E. Williams, Willoughby, O., $42,786. Noted June 30.

★Mich., Grayling—State Highway Dept. at office Bd. Rd. Comrs. Crawford Co. let contract grading and surfacing 2.03 mi. State Trunk Line Rd. 18-2, Sect. C, involving 7,497 cu.yd. excav., 19,053 sq.yd. gravel, to Crawford Co. Rd. Comn., Graying, $31,173. Noted May 26.

★Mich., Saginaw West Side—State Highway Dept. at office Bd. Rd. Comrs. Saginaw Co., let contract surfacing 3 mi. Assessment Dist. Rd. 70, stone gravel, and 4 mi. Assessment Dist. Rd. 30, gravel, to McNally & Wickham, Saginaw, $41,264 and $32,142 respectively.

★Mich., Sturgis—City let contract building 20,000 sq.yd. concrete pavement, with combined curb and gutter, to J. B. Hoey, Grand Rapids, rein.-con., $2.20, curb and gutter, $0.85, excav., $1. Total cost $56,700.

★Illinois—Dept. Pub Wks. and Buildings, Div. Highway, Springfield, let contracts paving (1) 6 mi. state highway, Sect. C-1, Route 7, concrete, Putnam Co., (2) 0.44 mi. Sect. F-1-29a, Route 7, concrete, Putnam Co., (3) 4.91 mi. Sect. D-1, Route 7, concrete, Bureau Co., (4) 3.23 mi. Sect. J-1, Route 7, concrete, Bureau Co., (5) 1.61 mi. Sect. U-1, Route 7, concrete, La Salle Co., (6) 3.64 mi. Sect. V-2, Route 8, concrete, Macoupin Co., (7) 4.14 mi. Sect. L-1, Route 9, concrete, Effingham Co., (8) 2.17 mi. Sect. T-1, Route 9, concrete, Madison Co., (9) 3.81 mi. Sect. 1, Route 1, concrete, Clark Co., (10) 3.43 mi. Sect. 18, Route 2, concrete, Alexander Co., (11) 6.25 mi. Sect. 10, Route 4, concrete, Livingston Co., (12) 5.68 mi. Sect. 12, Route 4, concrete, Livingston Co., (13) 7.95 mi. Sect. 13, Route 4, concrete, McLean-Livingston Counties, (14) 7.28 mi. Sect. 11, Route 5, concrete, McHenry Co., (15) 4.43 mi. Sect. 14, Route 5, concrete, Boone Co., (16) 3.98 mi. Sect. 13, Route 5, concrete, Boone Co., (17) 6.12 mi. Sect. 12, Route 5, concrete, McHenry Co., (18) 3.09 mi. Sect. 15, Route 5, concrete, Boone Co., (19) 2.98 mi. Sect. 1, Route 7, concrete, Rock Island Co., (20) 2.54 mi. Sect. 2, Route 7, concrete, Henry Co., (21) 8.44 mi. Sect. 4, Route 7, concrete, Henry Co., (22) 2.38 mi. Sect. 1-Y, Route 10, concrete, Champaign Co., (23) 4.93 mi. Sect. 2, Route 10, concrete, Champaign Co., (24) 5.04 mi. Sect. 3, Route 10, concrete, Champaign Co., (25) 3.58 mi. Sect. 13, Route 10, concrete, Macon Co., (26) 3.63 mi. Sect. 14, Route 10, concrete, Macon Co., (27) 3.95 mi. Sect. 15, Route 10, concrete, Macon Co., (28) 6.12 mi. Sect. 24, Route 10, concrete, Sangamon-Morgan Counties, (29) 6.42 mi. Sect. 25, Route 10, concrete, Morgan Co., (30) 3.41 mi. Sect. V-1, Route 25, concrete, Effingham Co., to Jansen & Schafer, Pekin, (1) $113,706, (2) $8,287, (3) $99,308, (4) $63,493; Miller & Comstock, 221 Cooper St., Peoria, (5) $33,579; W. F. Smith & Co., Rensselaer, Ind., (6) $85,285; J. W. Etchison, Casey, (7) $91,658; Hugh Lumber & Constr. Co., Highland, (8) $52,705; Arnold & Co., Casey, (9) $74,978; F. T. Williams, Decatur, (10) $69,170; Cameron & Joyce, Keokuk, Ia., (11) (12) (13); F. C. Nelson, 1244 Marquette St., Racine, Wis., (14) and (15) $264,401; J. J. Dunnegan, Shenandoah, Ia., (16) $86,830, (19) (20) and (21) $319,541; Federal Paving Co., 133 West Washington St., Chicago, (17) $128,734, (18) $64,351; Barnes & Vehey Constr. Co., Effingham, (22) $48,916, (23) $102,543, (24) $107,541; Bd. Supervs. Macon Co., Decatur, (25) $73,966, (26) $75,206, (27) $80,992; W. D. Lonergan Constr. Co., New Madrid, Mo., (28) and (29) $284,292; C. J. Moritz, Inc., West Allis, Wis., (30) $58,106.

★Wisconsin—State Highway Comn., at div. office 8, Natl. Bank Bldg., Superior, let contract improving Wauzeka-Prairie du Chien Rd., Federal Aid Project 106, Crawford Co., to Nelson-Webber Constr. Co., Oconomowoc, involving 15.95 acres clearing and grubbing, at $100 per acre, 50,560 cu.yd. earth excav., $0.46, 12,145 cu.yd. loose rock, $0.70, 12,400 cu.yd. solid rock, $1.70, 777.5 sq.yd. surfacing, $0.50, 125 sq.yd. concrete surfacing, $3, 2,500 bbl. cement in bridges and culverts, $7,650, 771.6 cu.yd. Class A concrete in culverts, $20.75, 494.7 cu.yd. concrete in bridges $23.50, 192.2 cu.yd. Class B concrete, $21, 101.7 cu.yd. Class D concrete, $26.50, 168,670 lb. structural steel, $0.0575, etc., total $128,047; Superior-Danburg Rd., Project 201, Douglas Co., to S. J. Groves & Sons, Globe Bldg., Minneapolis, Minn., involving 19,293 cu.yd. earth excav., $0.64, 159.7 cu.yd. Class A concrete in culverts, $28, 5.25 acres clearing and grubbing, $125, 204 cu.yd. borrow excav., $0.67, etc., total $26,634. Noted July 7.

Wisconsin—State Highway Comn., Madison, received bids improving Merrill-Wausau Rd., Federal Aid Project 225, Marathon Co., involving 13,858 cu.yd. gravel surfacing, from Road Constr. Co., Wisconsin Rapids, $2.51 per cu.yd., total $34,784; $0.18 for each additional ½ mi. haul; Brogan & Burns, Green Bay, $3.77½; total $52,314.

★Minnesota—State Highway Comn., 920 Guardian Life Bldg., St. Paul, let contract improving 6 mi. State Project 8-22, Federal Aid Project 57, Beltrami Co., to M. Rosholt, Warba, about $32,420; 9.3 mi. State Project 2-21, through Tamarack, Federal Aid Project 149, Aitkin Co., to Minnesota Rural Express Co., Montevideo, $27,664; 7 mi. State Project 13-22, between Montgomery and New Prague, Federal Aid Project 89, LeSueur Co., to Couse & Campbell, 417 South 5th St., Minneapolis, $13,213, 26 mi. State Project 1-21, between Westcott and Northfield, Federal Aid Project 212, Dakota and Rice Counties, to Foley Bros., 209 Gilfillan Blk., St. Paul, $204,000; 18 mi. State Project 53-21, Federal Aid Project 22, Dakota Co., Div. A, to S. J. Peterson, 200 West Lake St., Minneapolis, $18,949, Div. B, to A. W. Wilson, Hastings; 4 mi. State Project 7-27, between Lewiston and Stockton, Federal Aid Project 96, Winona Co., to Campbell Constr. Co., 3050 Hennepin Ave., Minneapolis, $63,141, 10 mi. State Project 9-22, from Fairmont to East Martin Co. line, Federal Aid Project 228, Martin Co., to C. W. McNamara, Bristol, S. D., $37,331; 25 mi. State Project 9-24, between Blue Earth and Banks, Faribault Co., to Cramer & Co., 503 Pioneer Bldg., St. Paul, $67,972; 8 mi. State Project 54-22, near Herman, Federal Aid Project 225, Grant Co., to Reierson & Nohre, Thief River Falls, $17,597; 16 mi. State Project 10-34, between Howard Lake and Delano, Federal Aid Project 30, Wright Co., to Dobbelman & Rasmussen, 4231 Colfax Ave., S., Minneapolis, $34,141, tile on above project, to J. Jorgensen, Estherville, Ia., $4,332; draining State Project 10-35, between Howard Lake and Dassel, involving 32,030 lin. ft. 6 in. and 10,220 ft. 10 in. tile, to J. Jorgensen,

Streets and Roads (continued)

Estherville, Ia., $6,921; grading and building culverts on 23.4 mi. State Project 9-23, Federal Aid Project 224, Jackson and Nobles Counties, grading, to G. N. Humphrey, 512 South State St., Aberdeen, S. D., $81,571, monolithic culverts, to Wessell Bros., 413 Guardian Life Bldg., St. Paul, $22,069. Noted July 21 and 28.

★**Minn., Duluth**—St. Louis Co. let contract laying 15 mi. concrete pavement on Miller Trunk Rd., from Duluth Heights to Pike Lake, involving 158,193 sq.yd. concrete and 12 mi. Miller Trunk Rd. from Pike Lake to Canadian & Northern R.R. crossing, 133,190 sq.yd. concrete, to Jacobson Bros., 410 Columbia Bldg., $505,394 and $447,446 respectively; grading, ditching and macadamizing 15.08 mi. State Trunk Rd. 35, from Virginia to Chisholm, 30 ft. wide, subgrading and ditching 20 mi. State Rd. 35, Soudan to Ely, 30 ft. wide, to A. Guthrie & Co., 366 Jackson St., St. Paul, $278,818 and $346,599 respectively; grading, ditching and macadamizing 8 mi. State Highway 3, along shore of Lake Superior from Duluth city limits to Lake Co. line, 30 ft. wide, to D. L. Clough Co., 707 East 1st St., $132,863; ditching and subgrading 15.36 mi. State Highway 35, from Virginia to Aurora, 30 ft. wide, to H. W. Coons Hibbing, and Winston Bros., 801 Glove Bldg., Minneapolis, 272,968. Noted June 23.

★**Minn., Jackson**—Jackson Co. will grade and gravel Federal Aid Project 134, State Rd. 2, 24 ft. wide. About $30,000. Work will be done by force account. Former bids rejected. Noted July 7.

★**Minn., Litchfield**—Meeker Co. let contract improving 7 mi. State Rd. 4, Job 2101, between Dassel & Kingston, 24 ft. wide, to Nelson, Fulton & Nelson, Plymouth Bldg., Minneapolis, $36,292; 4 mi. State Rd. 4, Job 2103, between Union Grove and Swede Grove Twps., to Studer & Manson, Excelsior, $9,816. Noted July 21.

★**Minn., Long Prairie**—Todd Co. let contract improving State Highway 4, Federal Aid Project 99, involving 20,308 lin.ft. gravel surfacing and 89,442 lin.ft. shaping and compacting, to C. F. Sculley Equipment Co., 2173 Shelby Ave., St. Paul, $26,677.

★**Kan., Syracuse**—Hamilton Co. let following contract grading and building bridges on 5.67 mi. Santa Fe Trail, Federal Aid Project 77, 24 ft. wide, involving 651.4 cu.yd. concrete, grading Sect. A, to J. B. Pratt, Syracuse, $12,742; building culverts n Sect. A, to Campbell Bros., Kansas City, Mo., $4,107; bridges on Sect. B. The Maxwell Constr. Co., Columbus, $13,609. Noted July 7.

★**Montana** — State Highway Comn. let contracts building 5 mi. Livingston-Wilsall Rd., Federal Aid Project 60A, Park Co., to B. P. Melchert, 203 Montana Blvd. Lewiston, $41,326; 6 mi. Federal Aid Project 105, Park Co., to Treasure State Constr. Co., Roundup, $65,505; 5 mi. Belknap-Furlong Rd., Federal Aid Project 90, Sanders Co., grading to Clifton, Applegate & Toole, 2 North Cedar St., Anaconda, $27,735; timber bridge, to Security Bridge Co., 502 North 32d St., Billings, $14,605. Noted June 16.

Wyoming—State Highway Dept., Cheyenne, plans to grade 101.58 mi. state highways, 10 mi. in Natrona Co., 8.58 mi. Yellowstone Highway in Platte Co., 22 mi. in Goshen Co., 11.9 mi. in Niobrara Co. and 49.1 mi. in Fremont Co. About $71,929. Work will be done by State forces. Z. E. Sevison, state enrg.

★**Missouri**—State Highway Dept., St. Genevieve, let contract building 2.44 mi. state road from Bloomsdale northwestward, State Aid Project 20.31, St. Genevieve Co., to S. P. Reynolds, Caruthersville, $26,348. Noted July 21.

★**Mo., Clinton**—City let contract paving 11 blocks North Washington St., brick on concrete base, to W. F. Hall, Clinton, $2.71 per sq.yd. About $25,000. Noted July 7.

★**Mo., Linn Creek**—Camden Co. let contract grading and building culverts on Project 20.41, to Newton Constr. Co., Jefferson City, $28,765.

★**Mo., Marshall**—City let contract paving Eastwood Ave., from east line of Odell St. to east city limits, to Land & Anderson, 3721 Bway., Kansas City. About $32,000. Noted July 21.

★**Tex., Beeville**—Bee Co. let contracts clearing, grubbing, grading, gravel surfacing and draining 8.5 mi. State Highway 9 from Karnes Co. line south, involving 1,278 cu.yd. Class A concrete, 22,680 cu.yd. unclassified earth excav, 89,875 lb. reinforcing steel, 19,966 cu.yd. adobe and 16,454 cu. yd. gravel surfacing, also 10.5 mi. State Highway 9 from San Patricio Co. north toward here, involving 173.68 cu. yd. 1:2:4 concrete 98,855 sq.yd. bituminous macadam, 16,008 lb. reinforcing steel, 31,555 cu.yd. gravel surfacing, to Smith Bros., Crockett, $191,744 and $187,865 respectively.

★**Tex., Cameron**—Milam Co. let contracts (a) grading and gravel surfacing, (b) constructing concrete and wooden drainage structures, on 22 mi. Buckholts-Milano Rd. Dist. 8, 14 ft. wide, to Rice & Winder, Austin, (a) $60,029; J. S. Barmore, Cameron, (b) $16,046.

Tex., San Augustine—San Augustine Co. received bids clearing, grubbing, grading, draining and building bridges on 20.97 mi., from D. Lavore, Palestine, $217,407; Smith Bros., Crockett, $233,097; G. Z. McClung Constr. Co., Cleburne, $245,873. Noted July 7.

Tex., Waxahachie—Ellis Co. received bids grading, surfacing and draining 4.23 mi. Highway 14 from Ennis north; (2) 7.18 mi. State Highway 14 from Ennis south; from Scarbrough & Smith, Cleburne, (1) $21,313, (2) $47,441; A. C. Buchanan & Son, Temple, (1) $21,689 (2) $49,055; O'Connor & McEnroe Co., Cleburne, (1) $22,564 (2) $50,680. Gravel to be furnished by county.

★**Colorado**—State Highway Dept, Denver, let contract grading and draining 3.308 mi. Redcliff-Gilman Rd., Federal Aid. Project 182, Eagle Co., to Peterson, Shirley & Gunther, Gunther Bldg., Omaha, Neb., $77,486; 3.124 mi. Ouray-Silverton Rd., Federal Aid Project 174, Ouray Co., to Pickering Bros. Constr. Co., Salt Lake City, Utah, $60,841. Noted July 7.

Wash., Seattle—City received bids July 23, concrete curbing West Massachusetts St., et. al., involving 27,175 lin. ft. special concrete curbing, 2,100 lin. ft. 6 in. side connections, concrete pipe, and 1,400 sq.yd. 2 course concrete walks, (a) clay, (b) concrete, from Scalzo & Co., 1708 22nd Ave. S., (a) $41,857, (b) $41,752; J. B. Murphy, Central Bldg., (a) $45,722, (b) $45,601; Interstate Constr. Co., Green Bldg., (a) $45,796, (b) $45,796.

★**California**—State Highway Dept., 515 Forum Bldg., Sacramento, let contract paving 10.6 mi. state highway between Weaverville and Tom Long Gulch, Federal Aid Project 81, Trinity Co., Portland cement, to Chadwick & Sykes, Crocker Bldg., San Francisco, $172,076. Noted July 21.

Cal., El Monte—Bd. Trustees received bids July 7 paving Main St., Granada Ave. and 7 other streets, concrete, from H. M. Hanawalt, La Verne, $51,522; W. Liddington, 420 East 60th St., Los Angeles, $55,432; Kneen Paving Co., Dudley Bldg., Santa Monica, $52,290. Noted June 23.

★**Cal., Inglewood**—City let contract paving Centinela Ave. between Sante Fe Ry. and Damask Ave., 6 in. concrete, to G. H. Oswald, 366 East 58th St., Los Angeles, $40,841.

★**Cal., Santa Barbara**—City let contracts to Fairchild-Gilmore-Wilton Co., Quin and Salsipuedes, Sts., grading, draining, paving, curbing and guttering, Arrellaga St. between Bath and Canal Sts., $33,460, Milpas St. between Haly and Amapamu Sts., $40,266; to Cook, Wyant & Moore, 1st Natl. Bank Bldg., grading, draining, curbing and guttering, Pedregosa St. between Bath and State Sts., $6,820.

Ont., Hamilton—City will pave 24,000 sq. yd. Main St. from Ottawa St. to Kenilworth Ave., asphalt. About $110,000. Work will be done by day labor. E. R. Gray, city engr.

★**Ont., Hamilton**—City will pave Edinburgh and Grovenor Aves., involving 5,000 sq. yd. asphalt, 1,000 lin. ft. curb, cost $26,00, also build sidewalks and curbs on Glen Rd., Gore St., Kenilworth, Wexford and Harmony Aves., involving 2,240 sq. yd. cement, 3,600 lin. ft. curbs, cost $9,000. Work wil be done by day labor.

★**Ont., Ridgetown** — Town let contract building 6,300 ft. concrete pavement, 18-24 ft. wide, to Archibald Constr. Co., 120 Delaware Ave., Toronto. About $40,000.

★**Ont., Toronto**—City let contracts building concrete sidewalks on Ivy, Westlake and Kew Beach Aves., to A. J. Penberthy, 292 Booth Ave.; Shaw St., Lincoln and Salem Aves., to Huckle Bros., 1162 Dufferin St.; Roblock Ave., to Grant Contg. Co., 50 Front St. E. About $30,000.

★**Ont., Trafalgar**—Twp. let contract building 4 mi. concrete road, to Lumsdem Eng. Co., 6 Adelaide St. E., Toronto. About $65,000.

Industrial Works

PROPOSED WORK

Mass., Springfield—J. W. and A. Gelfman, 222 Chestnut St., plans to build 1 story, brick and concrete garage on Main St. About $40,000. Architect not selected.

Conn., Bridgeport — Estate of S. H. Wheeler, 1188 Main St., having plans prepared by C. F. Baron, archt., 79 Sage St., for 1 or 2 story, 80 x 100 ft. concrete garage and repair shop on Middle and Gold Sts.

N. Y., Brooklyn—L. Hirsh, 22 Varet St. soon receives bids building 4 story, 90 x 100 ft., brick, steel and concrete factory, concrete foundation, on Thames St. near Morgan Ave. About $150,000. M. Klein, 37 Graham Ave., archt. and engr.

O., Bay Village—Northern Light & Power Co., c/o I. H. Case, Eaglecliff, having plans prepared by A. W. Harris, archt., Schofield Bldg., Cleveland, for 1 story, 40 x 72 ft. brick and steel power plant, here. About $75,000.

O., Cleveland—C. Rivitz & Co., 108 High St., having plans prepared by W. H. Hatch, archt., 10602 Olivet Ave., for 4 story, 50 x 132 ft., brick and steel warehouse and office on East 20th St. and St. Clair Ave. About $150,000.

O., Columbus—Bd. Dirs. Ohio State University having plans prepared by J. N. Bradford, archt., c/o owner, for 2 story, 100 x 300 ft., brick and concrete addition to power house, on Campus. About $300,000.

O., Troy—J. Stickel, Market St., plans to build 2 story ice plant, rein.-con. and brick, rein.-con. flooring. About $50,000. Private plans.

Ind., Mishawaka — Mishawaka Woolen Co. plans to build 6 story, 76 x 105 ft. brick and rein.-con. warehouse, rein.-con. flooring. About $500,000. A. Kahn, Marquette Bldg., Detroit, Mich., archt.

Wis., Milwaukee—Van Buren Garage Co., 174 Ogden Ave., having plans prepared by R. E. Oberst, archt., 307 Grand Ave., for 2 story, 60 x 127 ft., brick and concrete garage, rein.-con. flooring, concrete foundation, on Van Buren St. About $75,000.

Ia., Cedar Rapids—Harper & McIntire Co., Ottumwa, having plans prepared by Croft & Boerner, Inc., archts., 1006 Marquette Ave., Minneapolis, for 2 story, 100 x 140 ft. rein.-con., brick, stone and tile warehouse, on 6th Ave., S., and 4th St. About $100,000.

Minn., St. Paul—Owens Motor Sales Co. 713 University Ave., rejected bids constructing additional story to present building and 2 story, 50 ft. brick and concrete addition to garage. About $800,000 Toltz, King & Day, 1410 Pioneer Bldg., archts. Noted June 9.

Kan., Concordia—Union Pacific R. R. c/o W. Jeffers, mgr., Omaha, Neb., having plans prepared for 2 story, concrete, brick and steel freight depot, here. About $150,000. Private plans.

Mo., St. Louis—St. Charles Garage Co., c/o T. S. Kirkpatrick, 5510 Cates Ave., having plans prepared by N. B. Howard, archt., Arcade Bldg., for 4 story, 130 x 160 ft. rein.-con, brick and steel garage on St. Charles and 11th Sts. About $350,000.

Ont., St. Marys—St. Marys Milling Co. plans to rebuild factory recently destroyed by fire. Los $150,000. G. L. Rice, mgr.

BIDS DESIRED

Me., Gardner—Lockwood, Green & Co., archts. and engrs., 60 Federal St., Boston, receiving bids building 3 story, brick and steel addition to shoe factory of R. P. Hazzard Co., 421 Water St. Cost between $60,000 and $70,000.

Conn., Suffield—K. Kulle receiving bids building 1 story, 100 x 210 ft. warehouse, brick, cement flooring, concrete foundation. Private plans.

N. Y., Ossining—Until Aug. 16, by C. F. Rattigan, supt. State Prisons, Capitol, Albany, building addition to power house, at Sing Sing Prison, here. L. F. Pilcher, Capitol, Albany, state archt.; advertised in this issue.

O., Columbus—Until Aug. 17, by Braun, Fleming, Knollman & Prior, engrs., 233 South High St., building 1 story, 70 x 200 ft. and 110 x 123 ft. factory, steel and saw tooth construction, on West 1st Ave., for Columbus Forge & Iron Co., West 1st Ave. About $80,000. Noted June 2.

Industrial Works (Continued)

O., Elyria—Until Aug. 9, by Bd. Educ., building 1 story, 40 x 60 ft. central heating plant, brick, steel and concrete, rein.-con. flooring, concrete foundation. About $100,000. W. S. Rockwood, clk. Phegley & Szekeley, 5716 Euclid Ave., Cleveland, engrs.

Ill., Joliet—Until Aug. 15, by Zimmerman, Saxe & Zimmerman, archts., 64 East Van Buren St., Chicago, building 2 story, 47 x 64 ft. brick, concrete and steel plant, for Coal Products Mfg. Co. About $75,000.

Wis., Milwaukee—O. R. Schendel, 191 16th St., receiving bids building 2 story, 50 x 82 ft., brick, concrete and steel addition to garage, rein.-con. flooring, concrete foundation. About $40,000. Private plans.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Greenville**—Great Northern Paper Co., Millinocket, let contract building 1 story, 102 x 218 ft. rein.-con. repair shop, here, to H. P. Cummings, Portland. About $100,000. Noted July 28.

★**N. H., Seabrook**—Atlantic Bldg. Associates let contract building 3 story, 40 x 170 ft. brick factory, to R. Watkins, Amesbury, Mass. About $75,000. Noted April 28.

★**Mass., Cambridge**—Cambridge Gas Light Co., 719 Massachusetts Ave., let contract altering boiler house, concrete and steel, and installing two 350 H.P. steam boilers, to New England Structural Co., 110 State St., Boston. About $70,000.

★**Mass., Everett**—Builders Iron & Steel Co., Garvey St., let contract building 1 story, brick and steel factory, rein. con. flooring, concrete foundation, to Blake & Pope Co., 15 Beacon St., Boston. About $75,000.

★**Conn., Ansonia**—Ansonia Electric Co., 55 Main St., let contract building 2 story, 60 x 200 ft., rein.-con., brick and steel factory, rein. con. flooring, concrete foundation, to Aberthaw Constr. Co., 27 School St., Boston. About $250,000. Noted June 29.

★**Conn., Hartford**—City Health and Charity Depts. let contract building 2 story, 43 x 63 brick and concrete heating plant and laundry, also two 68 x 204 ft. concrete tunnels and 25 x 65 ft. concrete coal bunker on Holcomb St., to G. Cudemo, 327 Trumbull St. About $80,000. Noted July 28.

★**N. Y., College Point**—I. B. Kleinert Rubber Co., 725 Bway., New York City, let contract building 4 story, 75 x 150 ft. rein.-con., factory, to White Constr. Co., Inc., 95 Madison Ave., New York City. About $225,000.

★**O., Cleveland**—J. Laronge Co., 214 Williamson Bldg., let contract building 2 story, 42 x 75 ft. brick, steel and concrete garage, rein.-con. flooring, concrete foundation, at 2422 Prospect Ave., to W. I. Thompson & Sons Co., 5103 Euclid Ave. About $40,000.

Ind., Indianapolis—Natl. Paper Stock Co., 243 West Merrill St., let contract building 4 story, 110 x 142 ft. warehouse, brick and rein.-con., rein.-con. flooring, on West 11th St., to Builders' Constr. Co., 540 North Meridian St. About $200,000.

★**Ill., Niles** (Chicago P. O.)—St. Hedwigs Industrial School for Girls' let contract building 2 story printery and infirmary, brick and concrete, rein.-con. flooring, concrete foundation, to J. F. Schrambeck, 3414 North Hamlin St., Chicago, and F.

★**Mo., St. Louis**—C. G. Porter, 11 Sunset Ave., Richmond Heights, let contract building 1 story, 60 x 138 ft., brick and steel garage, on High Point St., here, to Rhodes & Cook, 6240 Delmar St. About $40,000.

Buildings

PROPOSED WORK

Mass., Amherst—Hotel—Amherst College having preliminary plans prepared by Putnam & Cox, archts., 114 State St., Boston, for 3 story, brick and steel. About $150,000.

Mass., Boston—Bank and Office—Harris, Forbes & Co., 35 Federal St., having plans prepared by Lockwood, Green & Co., archts., 209 Washington St., for 1 story, 70 x 80 ft., steel, brick and limestone, on Federal St. About $400,000.

Mass., Chester—School—Town Building Comn. having plans prepared by M. B. Harding, archt., 33 Elm St., for 2 story, brick, steel and concrete, on Center St. About $150,000.

Conn., Bridgeport—Church—St. Joseph Catholic Church having plans prepared by J. A. Jackson, archt., 660 George St., New Haven, for 1 story, 55x125 ft., brick and stone, on Madison Ave. H. Dahme, 96 Catherine St., pastor.

Conn., Hartford—School and Hall—St. Augustine Catholic Church plans to build school and hall. About $150,000. M. W. Barry, 10 Campfield Ave., pastor. Architect not selected.

Conn., Norwalk—Club—Norwalk Boys Club Comn. having plans prepared by Davis & Dane, archts., 1024 Main St., Bridgeport, for 3 story, 600x100 ft., brick, steel and concrete, on West St. J. H. Light, 100 Washington St., chr. Noted July 28.

Conn., Norwich—Store and Business—Schwartz Bros., 72 Main St., having plans prepared by Wiesner & Uffner, archts., 501 East Tremont Ave., New York City, for 3 story, 60 x 120 ft., brick, cement and stone. About $150,000.

Conn., Stafford Springs—Memorial—Warren Memorial Building Comn. plans to build 2 story, stone, brick and steel. About $150,000. E. C. and G. C. Gardner, 33 Lyman St., Springfield, Mass., archts.

Conn., West Hartford—Church—First Unitarian Church plans to build 1 story, brick and stone on Pratt St. About $150,000. C. Graves, Whitman Ave., pastor. Architect not announced.

N. Y., Hammel (Far Rockaway P. O.)—Hospital—Rockaway Beach Hospital, c/o J. E. Woodwell, archt. and engr., 501 5th Ave., New York City, rejected bids building brick, steel and stone addition, concrete foundation, here. About $250,000. Noted July 21.

N. Y., Long Island City—Apartment—Queens Realty Corp., c/o Neville & Bagge, archts. and engrs., 570 Bergen Ave., Bronx, having plans prepared for 1 story, 150 x 200 ft., brick, steel and stone, on Queens Blvd. from Lowery to Bragaw Sts. About $750,000.

N. Y., New York—Office and Bank—Excelsior Savings Bank, 6th Ave. and 23rd St., having plans prepared by R. H. Almiroty, archt. and engr., 48 West 46th St., for 12 story, 50 x 100 ft., brick, steel and stone concrete foundation, at 221 West 57th St. About $250,000.

N. Y., New York—Store and Office—Estate of E. Higgin, c/o B. W. Dorfman, archt. and engr., 26 Court St., Brooklyn, soon receives bids building 3 story, 100 x 200 ft. brick, steel and stone, concrete foundation, on 124th St. between 8th and St. Nicholas Aves., here. About $300,000.

N. J., East Orange—Gymnasium—Bd. Educ. soon receives bids building brick, steel and stone, concrete foundation. About $200,000. Guilbert & Betelle, 2 Lombardy St., Newark, archts. and engrs.

N. J., Kearney—High School—Bd. Educ. opens bids about Aug. 15, building brick, steel and stone, concrete foundation. About $700,000. Guilbert & Betelle, 2 Lombardy St., Newark, archts. and engrs.

N. J., Newark—Apartment Hotel—H. Kruvant, 88 Rose Terrace, having plans prepared by Bachoff, Jones & Cook, archts. and engrs., 9 Clinton St., for 8 story, brick, steel and stone, concrete foundation, on High and Clinton Sts. About $600,000.

N. J., Newark—School—Bd. Educ., City Hall, Broad St., opens bids about Sept. 15, building schools on Charlton and Elliot Aves., both brick, steel and stone, concrete foundations. About $250,000 each. Private plans.

N. J., Newark—School—Bd. Educ., City Hall, Broad St., opens bids about Sept. 15, building brick, steel and stone, concrete foundation, on Abington Ave. About $250,000. Private plans. Noted Feb. 10.

N. J., Newark—Temple—Strombach & Martens, archts. and engrs., 1091 Clinton Ave., Irvington, open bids about Aug. 20 building 4 story, 50 x 126 ft., on Clinton and Seymour Aves., for Clinton Hill Masonic Temple. About $175,000. Noted May 19.

N. J., Newark—Y. M. H. A. had plans prepared by F. Grad, archt. and engr., 245 Springfield Ave., for brick, steel and stone building concrete foundation. About $400,000. Noted June 30.

N. J., Summit—School—Bd. Educ. soon receives bids building brick, steel and stone, concrete foundation. About $200,000. Guilbert & Bettelle, 2 Lombardy St., Newark, archts. and engrs.

N. J., Verona—Administration—Essex Mountain Sanitarium opens bids about Aug. 15, building brick, steel and stone, concrete pile foundation. About $200,000. Runyon & Carey, 845 Broad St., Newark, engrs. J. Green, 31 Clinton St., Newark, archt.

Pa., Braddock—Theater and Office—B. Burke, 860 Braddock Ave., having plans prepared by H. S. Bair, archt., Vandergrift Bldg., Pitsburgh, for 1½ story, 80 x 125 ft. concrete and steel, rein.-con. flooring, at 840 Braddock Ave. Cost between $200,000 and $250,000.

Pa., Lancaster—Gymnasium—W. C. Pritchett, archt., 420 Walnut St., Phila., receives bids about Sept. 15, building 2 story, 65x130 ft. on College Ave. and Harrisburg Pike for F. E. M. College. H. H. Apple, Lancaster. About $150,000.

Pa., Pottstown—High School—Bd. Educ., West and Franklin Sts., soon receives bids building 3 story, brick, steel and stone on Franklin St. About $450,000. J. T. Simpson, 31 Clinton St., Newark, N. J., archt. and engr.

Pa., Somerset—Theatre—C. P. Pasco, Grand Theatre Bldg., plans to build 3 story, 66 x 180 ft. rein.-con., brick and steel, concrete foundation, on Main St. About $150,000. Architect not selected.

Pa., Washington—Hotel and Theatre—George Washington Hotel, Inc., opens bids about Aug. 10, building 10 story, 162 x 226 ft. concrete, brick and steel, rein.-con. flooring, on Main and Cherry Sts. W. K. Stoddart, 9 East 40th St., New York City, archt. Noted July 21.

Pa., Reading—Store—Dives-Pomroy-Stewart having preliminary plans prepared by F. A. Muhlenberg, archt., Flanders Bldg., Phila., for 7 story, on 6th and Court Sts. About $200,000.

W. Va., Logan—Hospital—Guyan Valley Hospital Co., having plans prepared by W. B. Smith, archt., Logan, for hospital. About $150,000. Address H. D. Hotfield, c/o Kessler, Hotfield Hospital Co., Huntington. Noted July 28.

W. Va., Romney—High School—Bd. Educ. Hampshire Co. plans to build high school, here. About $150,000.

W. Va., Wayne—High School—Bd. Educ. Wayne Co. plans to build high school, here. About $150,000.

N. C., Elizabeth City—School—State plans to construct building at Negro Normal School on campus, here. About $180,000. J. A. Salter, Commercial Bank Bldg., Raleigh, archt.

La., New Orleans—Schools—Orleans Parish School Bd. having plans prepared by City Architect for 5 school buildings. About $1,250,000.

Tenn., Memphis—Club—Regan & Well and J. H. Kramer, archts., Bank Commerce Bldg. and opens bids about Aug. 20, building 5 story, 97 x 149 ft., steel, concrete and tile, on Adams and 3d Sts., for Catholic Club. About $500,000.

Ky., Louisville—Seminary—Southern Baptist Theological Seminary, 5th St. and Bway., plans to build seminary on Cherokee Drive. About $2,000,000.

O., Cleveland—See "Industrial Works."

O., Cleveland—Store and Office—Euclid Thirtieth Realty Co., 5103 Euclid Ave., having plans prepared by E. McGeorge, archt., 1900 Euclid Ave., for 4 story, 50x200 ft. brick, steel and concrete, rein.-con. flooring, concrete foundation, on East 30th and Euclid Ave. About $150,000. J. W. Thompson, secy.

O., Columbus—Dormitory—Thatcher Bldg. Co., 501 James Bldg., having sketches made for 7 story, men's dormitory on High St. About $500,000. A. J. Thatcher, pres.

O., Columbus—University—Bd. Dirs. Ohio State University having plans prepared by J. N. Bradford, archt., c/o owner, for 3 story, 94 x 140 ft. addition to physics building, cost $100,000; 4 story science building and college of medicine, $250,000; 4 story college of commerce and journalism, $400,000; 4 story administration building, $250,000; 4 story, 40 x 150 ft. addition to girls' dormitory, $150,000; 3 story, 60 x 100 ft. addition to Brown Hall, $100,000, brick, steel, stone and concrete. C. E. Steele, secy.

Buildings (Continued)

O., East Cleveland (Cleveland P. O.)—Community—Windemere Methodist Episcopal Church, c/o H. K. Ferguson, Vickers Bldg., Cleveland, plans to build 2 story, brick, steel and stone, on Holyoke Rd. and Euclid Ave. About $220,000. Architect not selected.

O., East Cleveland (Cleveland P. O.)—High School—Bd. Educ. plans to build 3 story, 30 room, brick, steel and concrete, rein.-con. flooring, concrete foundation, on Euclid Ave. opposite Grasmere Ave. About $450,000. C. E. Tilden, 15144 Euclid Ave., dir. schools. Architect not selected.

O., Fort McKinley (Taylorsburg P. O.)—Convent and Chapel—Sisters of Precious Blood, Dayton, having plans prepared by F. Kratzer, archt., 4106 Nebraska Ave., St. Louis, Mo., for 3 story, 60 x 200 ft., brick and rein.-con., rein.-con. flooring, concrete foundation. About $175,000.

O., Lakewood—Commercial and Lodge—Lakewood Lodge Knights of Pythias, c/o E. L. McIntyre, 1656 Wager Ave., plans to build 3 story, brick and concrete, rein.-con. flooring, concrete foundation, on Westlake and Detroit Aves. About $150,000. Architect not selected.

O., Marion—Hospital—City having plans prepared by V. Redding, archt., Mansfield, for 2 story, 36 x 124 ft. brick and concrete addition. About $200,000.

O., Rocky River—Schools—Bd. Educ., Northridge Rd., having plans prepared by W. H. Nicklas, archt., 1900 Euclid Ave., Cleveland, for two 2 story additions, rein.-con., steel and brick, rein.-con. flooring, concrete foundations. About $225,000. Noted July 7.

Ind., Anderson — Hospital — Home Hospital plans to build 3 story, 72 x 88 ft., brick, rein.-con. flooring, on West 8th St. About $150,000. E. F. Miller, Anderson, archt.

Ind., Goshen—Hotel—E. George plans to build 4 story, brick, rein.-con. flooring. About $400,000. Architect not selected.

Ind., Indianapolis—Office—Libby Realty Co., c/o Vonnegut, Bohn & Mueller, archts., Indiana Trust Bldg., having plans prepared for 12 story, steel and brick, rein.-con. flooring at 2 North Illinois St. About $750,000.

Ind., Laporte — Advance Rumely Co., Capitol Ave and Georgia St., having plans prepared by J. C. Llewellyn, archt., 385 South Dearborn St., Chicago, for 1 story, brick factory, rein.-con. flooring. About $50,000.

Ind., Lebanon—Church—Methodist Episcopal Church plans to build 3 story, 135 x 150 ft., brick, rein.-con. and steel, rein.-con. flooring. About $170,000. Lowe & Bollenbacker, 108 South La Salle St., Chicago, archts.

Ind., Linden—School—City, c/o T. Hall, trustee, having plans prepared by L. F. W. Steube & Co., archts., Danville, Ill., for 2 story, 100 x 110 ft. brick and hollow tile. About $155,000.

Ind., New Albany—Theatre and Lodge—B. P. O. Elks plan to build 3 story, brick, rein.-con. flooring. About $150,000. Joseph & Joseph, Taylor Bldg., Louisville Ky., archts.

Ind., Wabash—Memorial — American Legion plans to build 3 story, brick, rein.-con. flooring. About $200,000. Nicol, Scholer & Hoffman, 212 Murdock Bldg., Lafayette, archts.

Ill., Rockford—High School—Bd. Educ. having plans prepared by Peterson & Johnson archts., Swedish Amer. Bank. for 3 story, brick, rein.-con., limestone and terra cotta. About $650,000. E. E. Lewis, supt.

Ill., Centralia—Hospital—St. Marys Hospital, 207 North Elm St., plans to build 2 story, brick, stone and rein.-con. About $170,000. Architect not selected.

Ill., East St. Louis—School—Bd. Educ. having plans prepared by A. B. Frankel, archt., First Natl. Bank Bldg., for Hawthorne School, 2 story, brick, stone, steel and rein.-con., on 40th and Caseyville Sts. About $200,000.

Ill., Greenfield—High School—Bd. Educ. having plans prepared by M. J. Geise, archt., 800½ Main St., Quincy, for 2 story, rein.-con., brick and stone. About $150,000.

Ill., Springfield—High School—Bd. Educ., c/o M. G. Owen, soon receives bids constructing Fitzehaus School, 2 story, 70 x 180 ft. with 65 x 90 ft. ell, brick. About $200,000. Former contract cancelled. Helme & Helme, Ferguson Bldg., archts.

Wis., Wausau—Hospital—D. L. Plumer Hospital, c/o A. P. Woodson, McIndoe St., having preliminary plans prepared by R. E. Schmidt, Garden & Martin, archts., 104 South Michigan Ave., Chicago, for 4 story. Cost between $200,000 and $300,000.

Minn., Minneapolis—School — MacPhail School of Music and Dramatic Art, 804-06 Nicollet Ave., plans to build school, probably 4 story, on LaSalle Ave. and 12th St. About $250,000. W. MacPhail, pres. Architect not announced.

Kan., Pittsburgh — Office — Joplin, Pittsburg R. Co. plans to construct office building. About $200,000. Architect not selected.

Neb., Hastings—Dormitory — Hastings College having plans prepared by Miller, Fullenwider & Dowling, archts., 6 North Michigan St., Chicago, for 4 story, 70 x 109 ft., rein.-con., brick and stone. About $150,000.

S. D., Mitchell—Hospital—J. M. Brady, chn. Building Comn. of St. Josephs Hospital rejected bids received July 25, building 5 story, 66 x 155 ft. rein.-con., brick, tile and stone. About $300,000. E. H. Lundie, 530 Endicott Bldg., St. Paul, Minn., archt. Noted May 12.

Mo. Belton—High School—Bd. Educ., c/o E. K. George, pres., having plans prepared by J. H. Felt & Co., archts., Temple Bldg., Kansas City, for 2 story, 90 x 111 ft. rein.-con., brick and stone. About $150,000.

Mo., Kansas City—Church—St. Vincent's Roman Catholic Church having plans prepared by M. Carroll, archt., 3117 Flora Ave., for 2 story, 40 x 200 ft., brick, stone and steel, on 31st and Flora Ave. About $150,000.

Mo., St. Louis—Apartment—D. Caffarata, c/o J. D. Paulus, archt., 4729 Northland Ave., having plans prepared for 3 story, 75 x 85 ft. concrete and brick at 6700 Delmar St. About $150,000.

Ark., Hot Springs — Apartment — J. A. Cameron, Waukesha Hotel, plans to build 3 story, 58 x 150 ft. About $175,000. Architect not selected.

Okla., Muskogee—Church — Presbyterian Church having plans prepared by R. H. Hunt, archt., South West Life Bldg., Dallas, Tex., for 3 story, rein.-con., brick and stone. About $180,000.

Okla., Oklahoma City—Club—Oklahoma Club having plans prepared by Hawk & Parr, archts., 501 Security Bldg., for 6 story, 100 x 120 ft., rein.-con., brick and stone, rein.-con. flooring, at 2046 Grand St. About $300,000. Noted Feb. 10.

Okla., Tulsa—Hotel—H. Brockman having plans prepared by Van Siclen & Edelvard, archts., 319 South Detroit St., for 10 story, 52 x 90 ft. rein.-con., brick and steel, rein.-con. flooring, rock and concrete foundation. About $324,000.

Okla., Tulsa — Temple — Akdar Temple Corp., 704 Cosden Bldg., plans to build shrine temple on 4th and Denver Sts. About $500,000. A. C. Farmer, pres. Architect not selected.

N. S., Halifax—Office—Maritime Telephone & Telegraph Co. plans to build 5 story office and warehouse. About $160,000. J. A. Winfield, Halifax, genl. mgr.

Ont., Galt—Arena — Galt Athletic Assn. having plans prepared by G. A. Bodley, archt., Brantford, and soon receives bids building 200 x 280 ft. brick and steel, in park. About $200,000.

Ont., Walkerville—School—School Bd. having plans prepared by Watt & Blackwell, archts., Bank of Toronto Bldg., London, for 24 room school on Kildare Rd. About $450,000.

BIDS DESIRED

Mass., Gardner — Graded School — Until Aug. 8, by City Bldg. Comn., constructing 2 story, 70 x 110 ft., brick and steel, rein.-con. flooring, concrete foundation, on Prospect St. About $150,000. F. I. Cooper Corp., 33 Cornhill St., Boston, archts. Noted June 3.

D. C., Wash.—Apartment—Until Aug 10, by F. R. White, archt., 1410 G St., N. W., building on 18th and I Sts., N.W. About $150,000. Owner's name withheld.

Pa., Phila.—Church and Parish House—Until Aug. 15, by P. Merz, archt., Pennsylvania Bldg., constructing 2 story, 70 x 148 ft. rein.-con., brick and steel, rein.-con floring, concrete foundation, on Broad and Chelten Aves., for St. Marks Lutheran Church, c/o J. J. Schindel, 1314 Spring Garden St. About $250,000.

Pa., Williamsport—Until Oct. 1, by Martin Kilpatrick, archts., 130 South 15th St., Phila., building 5 story, 150 x 175 ft., brick and stone, rein.-con. flooring, rock foundation, on Elmira and 4th Sts., for Y. M. C. A., c/o E. H. Davis, Williamsport. About $400,000 Noted May 26.

Tenn., Nashville—Office—Until Aug. 16, by Methodist Episcopal Church Bd. of Missions, building 3 story rein.-con., and brick addition on Doctors Bldg., on Church St. About $250,000. Daugherty & Gardener, Stahlman Bldg., archts. Noted July 7.

O., Alliance—High School—Until Aug. 8, by Bd. Educ. building 2 story, brick, steel and concrete addition, rein.-con. flooring, brick and concrete foundation. About $250,000. F. L. Packard, Hayden Bldg., Columbus, archt.

O., Bascom—School—Until Sept. 1, by J. O. Rembolt, clk. Bd. Educ. Hopewell Twp., building 2 story, 73 x 88 ft. concrete and brick. About $150,000. O. D. Howard, 8 East Broad St., Columbus, archt.

O., Cleveland — Commercial — Frankel Light Co., 5016 Woodland Ave., receiving bids building 4 story, 66 x 154 ft., brick and timber, on West 6th St. and St. Clair Ave. About $150,000. A. Sogg, 319 Hippodrome Bldg., archt.

O., Cleveland—School Bldg. Additions—Until Aug. 29, by Bd. Educ., East 6th St and Rockwell Ave., building 1 story, 100 x 120 ft. addition to school on University Circle, 2 story, 35 x 217 ft. addition to school on Rawlins Ave. and East 79th St., both rein.-con., brick and steel, rein.-con flooring, brick and concrete foundations. About $200,000 and $300,000 respectively. F. Hogan, dir. W. R. McCornack, East 6th St. and Rockwell Ave., archt.

O., Cleveland—High School—Until Aug. 22, by Bd. Educ., building two 3 story, 40 x 140 ft. wings to High School on Parkwood Dr. and Everton Ave., brick, steel and concrete, rein.-con. flooring, brick and concrete foundations. About $250,000. F. S. Hagen, dir. W. R. McCornack, East 6th St. and Rockwell Ave., archt.

O., Cleveland—Schools—Until Aug. 29, by Bd. Educ., East 6th St. and Rockwell Ave., constructing 3 story, 160 x 300 ft., on Diana and Darley Aves., about $500,000; 3 story, 160 x 300 ft., on Broadview and Spring Rds., $500,000; 1 story, 150 x 201 ft. on East 116th St., $400,000; 3 story, 226 x 400 ft. High School on East 166th St. and Corbett Ave., $1,000,000; all brick, steel and concrete, rein.-con. flooring, brick and concrete foundations. W. R. McCormack, East 6th St. and Rockwell Ave., archt.

O., Elyria—High School—Until Aug. 9, by Bd. Educ., building 2 story, 82 x 121 ft., brick, steel and concrete, rein.-con. flooring, concrete foundation. About $250,000. R. S. Silsby, Lorain Co. Bank Bldg., archt.

O., Elyria—School—Until Aug. 9, by Bd. Educ., building Roosevelt School, 2 story, brick, concrete and steel, concrete foundation, on Western Heights. About $225,000. Phegley & Szekeley, 5716 Euclid Ave., Cleveland, engrs. R. S. Silsby, 901 Lorain County Bank Bldg., archts. Noted June 30.

O., Ravenna—High School—Until Sept. 9, by Bd. Educ. building 2 story, 110 x 225 ft. About $375,000. O. D. Howard, 8 East Broad St., Columbus, archt.

Ind., Indianapolis—Church — Tabernacle Presbyterian Church, 11th St. and Meriden Circle, receiving bids building 1 story, brick, steel and stone. About $200,000. J. W. Corbusier, Lennox Bldg., Cleveland, archt. Noted March 17.

Ind., Mt. Vernon—Memorial—Until Aug. 30 (change of date), by Bd. Comrs. Posey Co., building 2 story, 130 x 140 ft., brick and tile, rein.-con. flooring. About $200,000. O. E. Werking & Son, Palladium Bldg., Richmond, archts. Noted June 16.

Buildings (Continued)

Ind., North Judson—School—Until Aug. 16, by Bd. School Comrs., building 2 story, 124 x 160 ft., brick and rein.-con., rein.-con. flooring. About $160,000. Freyermuth & Maurer, 308 South Michigan St., South Bend, archts. Noted May 5.

Ill., Kankakee—Armory—Until Aug. 15, by E. D. Martin, archt., 304 South Wabash Ave., Chicago, building 1 and 2 story, 147 x 166 ft., brick and rein.-con., here, for State, c/o Adjutant Gen. Dickson, Springfield. About $200,000. Noted June 16.

Ia., Le Mars—Hospital—Until Aug. 10, by W. L. Steele, archt., United Bank Bldg., Sioux City, constructing 4 story, rein.-con., brick, stone and tile, on North Park St., for Sacred Heart Hospital Assn.

Kan., Wichita—Theatre and Store—Until Aug. 9, by C. W. and G. Rapp, archts., 190 North State St., Chicago, building 3 story, 140 x 150 ft., rein.-con. and steel, on North Lawrence St., for Miller Amusement Co., c/o L. M. Miller, Palace Theatre, 311 East Douglas St. About $600,000.

Okla., El Reno—School—Layton, Smith & Forsyth, archts., 701 Majestic Bldg., Oklahoma City, receiving bids building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, for Bd. Educ. About $212,000. Noted June 30.

Ont., Hamilton—School—Until Aug. 9, by R. H. Foster, secy.-treas. Bd. Educ., building 3 story, 35 room, rein.-con., on Lottridge St. About $400,000. W. G. Brown, Provident Loan Bldg., archt. Noted April 14.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded

★Mass., Gloucester—School—Bd. Educ. let contract building 3 story, 66 x 95 ft. brick, concrete foundation, on Dale Ave., to J. J. Bowes Co., 27 School St., Boston. About $151,000. Noted Feb. 10.

★Mass., Somerville (Boston P. O.)—Theatre—J. E. Locatelli, 78 Belmont St., will build 4 story, 70 x 125 ft., brick and steel, on Highland and Central Aves. Work will be done by day labor.

★Mass., Wellesley Hills—Club House and Theatre—R. W. Babson Statistical Organization let contract building 2 and 3 story, 59 x 126 ft., brick and steel, to W. Keller, 174 Webster St. About $150,000. Noted May 26.

★Mass., Woburn—School—Bd. Educ. let contract building 1 story, 100 x 100 ft., brick, concrete foundation, to C. S. Cunningham & Sons Co., 80 Boylston St., Boston, $127,800. Noted June 30.

★Conn., Norwich — Church — St. Marys Catholic Church, 70 Central Ave, let contract building 1 story, 60 x 130 ft., stone, brick and steel, concrete foundation, on Central Ave, to Carroll & Fenton, 2 Oak St. About $125,000. Noted Mar. 3.

★Conn., Stamford—Exchange — Southern New England Telephone Co., 114 Court St., New Haven, let contract building 3 story, 61 x 80 ft., brick, concrete, stone and steel, rein.-con. flooring, concrete foundation, on Main St., here, to T. J. Paroy Constr. Co., 1481 Seaview Ave., Bridgeport. About $150,000. Noted May 5.

★Conn., Warehouse Point—Home—Hartform Co. Home let contract building 1 story, 40 x 60 ft. brick and steel dining building, two 2 story 40 x 150 ft. brick and steel dormitories and two 1 story, 36 x 65 ft. frame structure, concrete foundations, to H. W. Lines Co., 134 State St., Meriden. About $200,000. Noted July 14.

★N. Y., Brooklyn—Apartments—Twenty-Sixth St. Corp., c/o Shampan & Shampan, archts. and engrs., 50 Court St., will build two 50 x 100 ft., brick, steel and stone, concrete foundations, on 82d and 20th Ave. and 81st. and 20th Ave. About $200,000 each. Work will be done by day labor.

★N. Y., Brooklyn—Apartment—Argonne Constr. Co., c/o Shampan & Shampan, archts., 50 Court St., will build 100 x 100 ft. brick, steel and stone, concrete foundation, on 85th St. and 20th Ave. About $200,000. Owner will build by day labor.

★N. Y., Buffalo — Club House — Saturn Club, Delaware Ave., let contract building 3 story, 150 x 200 ft. brick and sandstone, to R. E. Williams, Iroquois Bldg. About $300,000. Noted March 31.

★N. Y., New York — Apartment — J. Diechel Bldg. Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, 75 x 100 ft., brick, steel and stone, concrete foundation, on Crotona Park N. near Prospect Ave. About $175,000. Owner will build by day labor.

★N. Y., New York — Apartment — Eyra Holding Co., 870 Kelly St., will build 5 story, 82 x 100 ft., brick, steel and stone, on Grand Concourse near Fordham Rd., Bronx. About $150,000. I. Rosenfeld, pres. Work will be done by day labor. C. Kreymborg, 2534 Marion Ave., Bronx, archts. and engrs.

★N. Y., New York—Apartment—Shirenson Realty Corp., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, 80 x 90 ft., brick, stone and steel, concrete foundation, on Valentine Ave. and 197th St. About $150,000. L. Sheren, pres. Work will be done by day labor.

★N. Y., New York—Apartment—Weewin Constr. Co., c/o E. Roth, archt. and engr., 119 West 40th St., will build 5 story, 110 x 180 ft., brick, steel and stone, concrete foundation, on 179th St. and University Ave. About $200,000. Owner will build by day labor.

★N. Y., New York—Bank—United States Mortgage & Trust Co., 950 Madison Ave., let contract building 3 story, brick and stone, concrete foundation, on Madison Ave. and 74th St., to Clough-Bourne Constr. Co., 101 Park Ave. About $500,000.

★N. Y., New York—Office—Bar Assn., c/o H. C. Severance, archt. and engr., 372 Lexington Ave., let contract building 16 story, brick, steel and stone, on West 44th St., to C. L. Fraser, 372 Lexington Ave. About $750,000. Noted March 17.

N. Y., Perrysburg—Hospital—Commission of Buildings, Municipal Bldg., Buffalo, received bids for sundry alterations and additions to present buildings, also for construction of various new buildings, from Harding & Crea, White Bldg., Buffalo, $654,000; C. H. Everitt, 295 Auburn Ave., Buffalo, $715,590; Tifft Constr. Co., Iroquois Bldg., Buffalo, $748,700. Noted July 21.

★Pa., Phila.—Sales, etc.—Hurley Motor Co., 219 Broad St., let contract constructing 10 story, 80 x 100 ft. sales and service building, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 219 Broad St., to W. Steele & Son, 16 and Arch Sts. About $300,000.

★W. Va., Welch — School — Bd. Educ. Browns Creek Dist. let contract building 3 story, 70 x 140 ft., concrete, brick and steel, rein.-con. flooring, near here, to H. A. Lucas, Bluefield. About $175,000.

★W. Va., Williamson—High School—Bd. Educ. let contract constructing 2 story, brick and steel high school, and repairing and constructing additions to 3 other buildings, to West Bros., Wilkinsburg, Pa. About $150,000.

★O., Wadsworth—Schools—Bd. Educ. let contracts building 2 story, 66 x 66 ft., and 1 story, 24 x 84 ft., brick and concrete, to Carmichael Constr. Co., 524 Hamilton Bldg., Akron. About $159,000.

★O., Xenia—High School—Bd. Educ. let contract building 2 story, 128 x 250 ft., brick and concrete, on Church St., to Industrial Building Co., 757 Reibold Bldg., Dayton, $283,000.

★O., Xenia—High School—Bd. Educ. let contract building Lincoln School, 2 story, 117x 120 ft. brick and concrete, on Market St., to Industrial Bldg. Co., 798 South Jefferson St., Dayton. About $133,000. Noted June 2.

★Ind., Carmel—School—B. Evans, trustee, let contract buildng 2 story, 95 x 120 ft., brick, rein.-con. flooring, to Bower Constr. Co., Newcastle. About $160,000. Noted June 30.

★Ind., Kokomo—Lodge — Masonic Temple Assn. let contract building 5 story, 70 x 110 ft., brick, rein.-con. flooring, to English Bros., Church and Randolph Sts., Champaign, Ill. About $205,000. Noted June 16.

★Wis., Park Falls—Church, School and Rectory—St. Anthony Catholic Congregation let contract building 2 story, 112 x 160 ft. and 30 x 70 ft., brick and concrete, rein.-con. flooring, concrete foundation, to Schneider Constr. Co., Madison and Farwell St., Eau Claire. About $150,000.

★Ia., Belle Plaine — High School — Bd. let general contract building 2 story, 125 x 135 ft. rein.-con., brick and tile, to J. Park Co., Belle Plaine, $108,575. Noted July 7.

★Minn., Minneapolis—Music—State Bd. Control, c/o D. F. Mullen, secy., Capitol, St. Paul, let general contract building 3 story, 95 x 160 ft., rein.-con., brick, stone and tile, on State University Campus, to R. J. Cheney & Co., 311 South 7th St., $181,780; heating, to Belden, Porter & Gray, 914 La Salle Ave., $32,918. Noted July 21.

★Minn., Virginha — Grade School — Bd. Educ. let contract building 3 story, 58 x 215 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on 3d St., to Naufts & Bergstrom, 416 Columbia Bldg., Duluth, $218,900. Noted July 14.

★Mont., Helena—Schools—Bd. Educ. let general contracts building Central School, to I. T. Brown & Co., Butte, $68,669; Hawthorne School, to R. C. James, 314 Chaucer St., Helena, $132,374. Both 2 story, rein.-con., brick, stone and tile. Noted May 5.

★Mo., Kansas City—Mausoleun—Kansas City Mausoleun Co., Bryant Bldg., let contract building 2 story, 75 x 135 ft., rein.-con., stone and Georgia marble, at Forest Hill Cemetary, to Pratt-Thompson Constr. Co., Republic Bldg. About $590,000.

★Mo., St. Louis—Laboratory—St. Louis University, c/o W. Robinson, Grand and Pine Sts., let contract building 3 story, brick and rein.-con., on Grand and Caroline St., to Widmer Engr. Co., Syndicate Trust Bldg.

★Okla., Pryor—State School—State Bd. Pub. Affairs, Oklahoma City, let contract building 2 story, 80 x 120 ft., rein.-con., brick and stone, to Manhattan Constr. Co., 3d and Fondulac Sts., Muskogee. About $175,000.

★Wash., Seattle—Bank—Seattle Natl. Bank, 2nd Ave and Columbia St., let contract building 2 story, 120 x 120 ft., concrete and steel, to Pacific States Constr. Co., 1300 Railroad Blvd. About $165,000. Noted May 12.

★Ont., Hamilton—School—Bd. Educ. let contracts building 4 story technical school, rein.-con. and brick, rein.-con. flooring, concrete foundation, on Wentworth St., general, to W. E. Wood Constr. Co., 87 Sandwich St., Walkerville; heating, ventilating and plumbing, to A. Clark, 7 Main St. W.; electric, to Electric Supply Co. Ltd., 65 James St. S. Total cost $700,000. Noted July 7.

★Ont., Sault Ste. Marie — School — Bd. Educ. let general, heating and plumbing contracts for 3 story, 120 x 138 ft. concrete, brick and steel, concrete foundation, on Tancred and Wellington Sts., to Mitchell & Cooper, Adams Blk. $225,000; electric contract, to Rapid Electric Co., 725 Queen St. E. Total cost $350,000.

★Ont., Toronto — School — Bd. Educ. let following contracts building 2 story, 10 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Dufferin St.; masonry, to Gratton Ltd., 486 Clinton St., $57,277; carpentry, to F. Armstrong, 89 Oak St., $20,774; heating and plumbing, to Purdy-Mansell Ltd., 63 Albert St., $[illegible]9,690, etc. Total cost $150,000. Noted June 23.

Federal Government Work

PROPOSED WORK

N. Y., New York—Dredging—Spec. 4505—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to dredge in harbor, here.

N. J., Lake Denmark—Power Plant Improvements, etc.—Spec. 4501—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to improve power plant and fire protection system, here.

Va., Yorktown—Power House, etc—Spec. 4498—Bureau Yards & Docks, Navy Dept., Wash., D. C. plans to construct power house, dispensary, reservoir and railroad siding, here.

Tex., Ft. Bliss—Buildings—Constructing Quartermaster, plans to construct various buildings here.

Federal Government Work (Continued)

Mex., Ft. Bayard—Hospital—Treas. Dept., Wash., D. C., plans to construct, here. J. A. Wetmore, superv, archt.

H. T., Pearl Harbor—Storehouse—Spec. 4504—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build 1 story, here.

BIDS DESIRED

Md., Baltimore—Riprap—Until Aug. 9, by Supt. Lighthouses, Baltimore, furnishing and placing riprap at Tangier Sound Light Sta., Va.

Md., Baltimore—Riprap—Until Aug. 9, by Supt. Lighthouses, Room 329, Custom House, furnishing and placing 500 ton riprap at Windmill Point, Light Sta., Va.

Md., Baltimore—Riprap—Until Aug. 16, by Supt. Lighthouses, furnishing and placing riprap at Choptank River, Light Sta,

D. C., Bellvue—Chimney—Spec. 4483—Until Aug. 17, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing, here. Noted July 21.

D. C., Wash.—Building—Until Aug. 23, by Secretary Dept. of Interior, for (1) constructing home economics building and dining hall at Howard University, (2) installation heating, plumbing and gas, (3) electrical installation, (4) furnishing, erecting and painting structural steel and iron work; $25 deposit required for plans.

Va., Norfolk—Buildings—Until Aug. 22, by Treas. Dept., Wash., D. C., constructing (exclusive of mechanical equipment) main hospital, residence for officer in charge, nurses' and attendants' quarters, laundry, garage and boiler house, at U. S. Public Health Serv. Hospital, Tanner's Creek, here. J. A. Wetmore, acting superv. archt.

Va., Norfolk—Hospital—Until Aug. 17, by Treas. Dept., Wash., D. C., for construction and mechanical equipment for U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt.

Va., Yorktown—Water, Sewer and Drainage Systems—Spec. 4449—Until Aug. 10, by Bureau of Yards & Docks, Navy Dept., Wash., D. C., constructing at Navy Mine Depot, here. C. W. Parks, ch. of Bureau.

Va., Yorktown—Water Tanks and Towers—Spec. 4357—Until Aug. 10, by Bureau of Yards & Docks, Navy Dept., Wash., D. C., constructing, here.

Fla., Lake City—Hospital—Until Aug. 30, by Treas. Dept., Wash., D. C. for construction and mechanical equipment for U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt.

Mich., Detroit—Dredging—Until Aug. 31, by U. S. Engineer Office, dredging in St. Clair Flats Canal channels; advertised in this issue.

Wis., Appleton—Mezzanine Floor, etc.—Until Aug. 19, by Treas. Dept., Wash., D. C., furnishing materials and labor constructing, in U. S. Post Office, here. J. A. Wetmore, superv. archt.; advertised in this issue.

Tenn., Memphis—Cement—Until Aug. 11, by Mississippi River Comn., 1st and 2d Distrs., Custom House furnishing and delivering 20,000 sacks portland cement; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

N. Y., Iona Island—Power Plant Improvements—Spec. 4215—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing at Ammunition Depot, here, from Lord Constr. Co., 105 West 40th St., New York City, $20,939 (150 days); Jaehnig & Peoples, 223 13th St., Newark, N. J., $22,683 (65 days); J. R. Proctor, Inc., 120 Liberty St., New York City, $22,880. Noted July 14.

★N. Y., New York—Fire Alarm System—Spec. 4470—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing fire alarm and watchman's signal systems, here, to Michigan Auxiliary Fire Alarm Co., 4108 Woodward Ave., Detroit, Mich., $3414 (90 days). Noted July 28.

Pa., Pittsburgh—Lock-Valves—U. S. Engineer received bids furnishing and delivering for Lock 5, Allegheny River, from Variety Iron & Steel Wks. Co., 1227 East 40th St., Cleveland, O., $4,477; J. and J. B. Milholland Co., 714 5th Ave., $4,995; Ellicott Machine Corp., Bush and Severn Sts., Baltimore, $5,652. Noted July 7.

★D. C., Wash.—Roof—Treas. Dept. let contract building new roof on Treas. Dept. Bldg. to M. Serretto, 3 Tremont Row, Boston. About $190,000.

★Va., Quantico—Storage Building—Spec. 4467—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract building at incinerator plant, here, to Claiborne & Taylor Inc., Richmond Trust Bldg., Richmond, $15,500 (120 days). Noted July 14.

★Ill., Ft. Sheridan—Jetties and Pier—U. S. Government let contract constructing 10 jetities and repairing pier, here, to Sollitt Co., 79 East Adams St., Chicago. About $35,000.

★Okla., Pawhuska—Office—U. S. Government, c/o G. Wright, let contract building 3 story, 48x80 ft. native stone and rein.-con., to M. F. Herber, 8th and Okmulgee Sts., Muskogee. About $150,000.

Cal., San Diego—Sprinkler System—Spec. 4466—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids installing in storehouse, Naval Base, here, from Western Automatic Sprinkler Co., 1031 Van Nuys St., San Francisco, $18,380 (180 days); Grinel Co. of Pacific, 439 3d St., Los Angeles, $19,500 (150 days); Pacific Fire Extinguisher Co., 440 Howard St., San Francisco, $19,925 (150 days). Noted July 7.

★Cal., San Diego—Lawn Sprinkler System—Spec. 4471—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing at Naval Base, Marine Barracks, here, to W. C. Merritt Co., 727 7th St., San Diego, $3,889. Noted June 23.

Miscellaneous

PROPOSED WORK

Tunnel—Springfield, Mass.—Boston & Albany R.R., South Sta., Boston, will draw plans for concrete and steel tunnel, under Union Station, here. Cost between $25,000 and $30,000. F. B. Freeman, ch. engr.

Drill, Hoisting Engines and Derrick—Lyons, N. Y.—F. H. Wells is in the market for double drill, hoisting engines and boiler, and 1 stiff leg derrick complete.

Ratproofing Sheds—New Orleans, La.—City having plans prepared by Eng. Dept. Bd. Port Comrs. for ratproofing sheds and wharves on 8th and Harmony, St. Andrews and Celeste Sts. As soon as plans are completed such portions of work that cannot be done by Dock Bd. force will be advertized and given out by contract. Concrete work for 8th St. shed estimated at $50,000, Celeste St., $106,000, St. Andrew, $30,000.

Street Sweeper, etc.—Houston, Tex.—T. L. Waugh, Street and Bridge Comr., plans to purchase 3 street sweepers, about $7,300 each, and 10 ton road roller, 5,475.

Lighting System—Ridgetown, Ont.—Howard Twp. plans to build electric lighting and power distribution system. G. McDonald, clk. A. Lawlor, 190 University Ave., Toronto, engr.

BIDS DESIRED

Center Bearings, etc.—New Haven, Conn.—Until Aug. 15, at office of E. S. Nettleton, city engr., 18 City Hall, furnishing and delivering center bearings, track segments, bogie wheels, etc., for Ferry St. Bridge; advertised in this issue.

Cargo Shed and Bulkhead—Wilmington, Del.—Until Aug. 15, by Harbor Comn., building 120 x 500 ft. cargo shed and 250 ft. bulkhead. About $300,000. Bids will be asked of former bidders or Wilmington marine terminals. J. F. Meigs, 1112 Chestnut St., Phila., Pa., engr.

Inspection Shed—Brooklyn, N. Y.—Until Aug. 16, by Transit Comn., 49 Fafayette St., New York City, building inspection shed at Livonia Ave. yard.

Paving Blocks—New York, N. Y.—Until Aug. 9, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and delivering 5,500 sq.yd. wood paving blocks.

Ferry Landing, etc.—Palmyra, N. J.—Until Aug. 26, by Tacony-Palmyra Ferry Co., Liberty Bldg., Phila., building timber and concrete ferry landing or wharf, 60 ft. wide, 180 ft. long, with appurtenant bridge, rack, etc. at foot of Cinnaminson Ave. here. J. Meigs, 1211 Walnut St., Phila., consult. engr.

Incinerator—Philadelphia, Pa.—Until Aug. 26, by city, building incinerators; F. H. Craven, dir.; advertised in this issue.

Heating System—Wash., D. C.—Until Aug. 10, by Dist. Comrs., 509 Dist. Bldg., furnishing and installing complete 2 pipe vacuum heating system in Gallinger Hospital, on 19th St. and Massachusetts Ave. C. H. Rudolph, comr.; advertised in this issue.

Asphalt Plant and Steam Roller—Norfolk, Va.—L. F. Hobbs, Inc., 115 East 12th St., is in the market for 3 unit portable asphalt plant, 1,250 yd. capacity, also 3 ton 3 wheel steam roller.

Pipe and Special Castings—Milwaukee, Wis.—Until Aug. 10, by Central Bd. Purchases, furnishing 3,510 ton straight pipe and 343 ton special castings for water dept.

Sewer Pipe—Milwaukee, Wis.—Until Aug. 10, by Comr. Pub. Wks., furnishing 15,255 ft. 8-30 in. sewer pipe. About $35,000. G. Staal, city engr.

Road Machine—West Allis, Wis.—Until Aug. 8, by A. Wichner, secy. Bd. Pub. Wks., furnishing machine to maintain dirt roads (grader operating under own power or equivalent).

Truck—Franklin (R. F. D. Virginia), **Minn.**—Until Aug. 8, by village, c/o W. Weaver, clk., furnishing 1 truck, combination stake and dump body, capacity 2 or 2.5 ton.

Pipe—Montreal, Que.—Until Aug. 9, by Chairman Administrative Comn. furnishing 100 ton c.i. pipe. About $7,500. A. E. Doucet, dir. pub. wks.

Breakwater—Ft. William, Ont.—Until Aug. 26, by R. C. Desrochers, secy. Dept. Pub. Wks., Ottawa, building rubble mound extension to Mission River breakwater. About $35,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Coal Pockets and Coal Handling Platforms—Glastonbury, Conn.—A. E. Phelps, Main St., let contract building concrete coal pocket and coal handling platforms, etc., to L. Sellew, South Glastonbury. About $25,000.

★Grandstand—Waterbury, Conn.—Waterbury Baseball Assn., c/o C. A. Templeton, 13 East Main St., let contract building at Eastern League Ball Park, to Tracy Bros. Co., Benedicts St. About $25,000. Noted June 23. Private plans.

★Storage Tanks—Fall River, Mass.—New England Oil Co., Peat St., let contract building ten steel storage tanks on concrete foundations, to Chicago Bridge & Iron Wks., 3111 Hudson Terminal Bldg., New York City. About $60,000.

Piers—Phila., Pa.—G. F. Sproule, dir. Dept. Wharves, Docks & Ferries, 550 Bourse Bldg., received bids removing old piers, dock, etc., dredging and constructing piles, platforms, buildings, etc., from Snare & Triest, Weightman Bldg., $554,500; Armstrong & Latta, Land Title Bldg., $621,240; McLean Constr. Co., Fidelity Bldg., Baltimore, Md., $660,000. Noted July 14.

★Cast Iron Pipe—St. Petersburg, Fla.—City let contract furnishing 10,000 ft. 4 in., 27,800 ft. 6-16 in., and 750 ft. 24 in. c.i. pipe for watermains, to Amer. Cast Iron Pipe Co., Birmingham, Ala., $41,074.

★Water Pipe and Gate Valves—Milwaukee, Wis.—Central Bd. Purchases let contract furnishing 275 ton Class C 16 in. water pipe, to Natl. Cast Iron Pipe & Fdry. Co., Tarrant City, Birmingham, Ala., $12,196; twelve 16 in. gate valves, to Nelson Valve Co., 650 West Lake St., Chicago, $1,481. Noted July 21.

Sluice Gates—Los Angeles, Cal.—Bd. Supervs. Los Angeles Co. received bids July 18 furnishing two 7 ft. steel sluice gates, 20 ton capacity each, for Devils Gate Dam, from Enterprise Brass Fdry. Co., 968 McGarry St., $19,579; J. Hendy Iron Wks., Los Angeles, $19,850; Llewellyn Iron Wks., Main and Redondo Sts., $24,567. Noted July 14.

CONSTRUCTION
NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 12	Sidney, O.	Aug. 11
	Adv. 11.	
Aug. 15	Allegan, Mich.	July 28
	Adv. July 28 and Aug. 4.	
Aug. 15	Atwater, Minn.	Aug. 4
Aug. 15	Idlewood, O.	Aug. 4
Aug. 15	River Falls, Wis.	Aug. 11
Aug. 16	Veblen, S. D.	Aug. 11
Aug. 16	Mattoon, Ill.	Aug. 11
Aug. 17	Scarsdale, N. Y.	Aug. 11
	Adv. Aug. 4 and 11.	
Aug. 18	Joplin, Mo.	Aug. 4
Aug. 18	Tulsa, Okla.	Aug. 4
Aug. 24	Baltimore, Md.	Aug. 11
	Adv. Aug. 11.	
Aug. 29	Carthage, N. Y.	Aug. 11
	Adv. Aug. 11.	
Sept. 1	Verona, Pa.	July 21

SEWERS

Aug. 15	Toronto, Ont.	Aug. 4
Aug. 15	West Park, O.	Aug. 11
Aug. 15	Durham, N. C.	Aug. 11
Aug. 16	Ada, Okla.	Aug. 11
Aug. 16	Excelsior Springs, Mo.	Aug. 11
Aug. 17	Indianapolis, Ind.	July 28
	Adv. July 28 and Aug. 4.	
Aug. 17	Phila., Pa.	Aug. 11
Aug. 18	New Brighton, S. I., N. Y.	Aug. 11
Aug. 22	Casper, Wyo.	Aug. 11
Aug. 22	Wash., D. C.	Aug. 11
Aug. 23	Burbank, Cal.	Aug. 11

BRIDGES

Aug. 15	Columbus, O.	July 21
Aug. 15	Burlington, Wis.	July 21
Aug. 15	Progress, Pa.	Aug. 4
Aug. 15	Comanche, Tex.	Aug. 11
Aug. 16	Bridgeport, Conn.	Aug. 11
Aug. 17	Rochester, N. Y.	July 21
	Adv. July 21 and 28, Aug. 4 and 11.	
Aug. 17	Denville, N. J.	Aug. 4
	Adv. Aug. 4 and 11.	
Aug. 18	Gaffney, S. C.	Aug. 11
Aug. 18	Vandalia, Ill.	Aug. 11
Aug. 19	Cobleskill, N. Y.	Aug. 4
	Adv. Aug. 4 and 11.	
Aug. 19	Ohio	Aug. 11
Aug. 23	North Carolina	Aug. 11
Aug. 23	Trenton, N. J.	July 28
	Adv. July 28, Aug. 4 and 11.	
Aug. 23	Valley City, Ill.	Aug. 11
	Adv. Aug. 11.	
Aug. 24	New Jersey	Aug. 11
	Adv. Aug. 11.	
Aug. 24	Cleveland, O.	Aug. 11
Aug. 26	Wellington, Kans.	Aug. 11
Aug. 30	Kelso, Wash.	July 28
Sept. 7	Kingman, Kan.	June 30

DAMS

Aug. 18	Halifax, N. S.	Aug. 11

RAILWAYS

Aug. 16	Wisconsin	Aug. 11

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Aug. 15	Harlan, Ia.	Aug. 4
Aug. 23	Redwood Falls, Minn.	Aug. 11
Aug. 25	Benton, Mo.	Aug. 4
	Adv. Aug. 4 and 11.	
Sept. 6	Mason City, Ia.	Aug. 11

STREETS AND ROADS

Aug. 15	Montreal, Que.	Aug. 4
Aug. 15	Camden, S. C.	Aug. 4
Aug. 15	Palo Pinto, Tex.	Aug. 4
Aug. 15	Somerville, N. J.	Aug. 11
	Adv. Aug. 11.	
Aug. 15	Crystal Falls, Mich.	Aug. 11
Aug. 15	Comanche, Tex.	Aug. 11
Aug. 15	Wingham, Ont.	Aug. 11
Aug. 15	Montana	Aug. 11
Aug. 16	Albany, N. Y.	July 28
	Adv. July 28, Aug. 4 and 11.	
Aug. 16	New York	Aug. 4
Aug. 16	Massachusetts	Aug. 11
Aug. 16	Phila., Pa.	Aug. 11
Aug. 16	Lanark, Ill.	Aug. 11
Aug. 16	Magnolia, N. J.	Aug. 11
Aug. 17	New Jersey	July 28
	Adv. July 28 and Aug. 4.	
Aug. 17	Missouri	Aug. 4
Aug. 17	Shawano, Wis.	Aug. 11
Aug. 17	Bellaire, Mich.	Aug. 11
Aug. 17	Petoskey, Mich.	Aug. 11
Aug. 17	Trenton, Mo.	Aug. 11
Aug. 17	New York, N. Y.	Aug. 11
Aug. 18	Richwood, W. Va.	July 28
Aug. 18	Missouri	Aug 4
Aug. 18	Baldwin, Mich.	Aug. 11
Aug. 18	Ada, Okla.	Aug. 11
Aug. 18	San Augustine, Tex.	Aug. 11
Aug. 19	Ohio	Aug. 11
Aug. 19	Sturgis, Mich.	Aug. 11
Aug. 19	Constantine, Mich.	Aug. 11
Aug. 19	Maryville, Tenn.	Aug. 11
Aug. 19	Denver City, Col.	Aug. 11
Aug. 20	Cedarburg, Wis.	July 28
Aug. 20	Brainerd, Minn.	Aug. 4
Aug. 22	Watertown, S. D.	Aug. 11
Aug. 22	Louisiana	Aug. 11
Aug. 22	Eagle River, Mich.	Aug. 11
Aug. 22	North Carolina	Aug. 11
Aug. 22	Wash., D. C.	Aug. 11
	Adv. Aug. 11.	
Aug. 23	Worthington, Minn.	Aug. 4
Aug. 23	Anoka, Minn.	Aug. 4
Aug. 23	North Carolina	Aug. 11
Aug. 23	Kentucky	Aug. 11
Aug. 24	Delaware	Aug. 4
Aug. 24	Rhode Island	Aug. 11
	Adv. Aug. 11.	
Aug. 24	Camden, Ark.	Aug. 11
	Adv. Aug. 11.	
Aug. 25	Ontario	Aug. 11
Aug. 26	Wellington, Kan.	Aug. 4
Aug. 30	Troy, Kan.	Aug. 4
Aug. 31	Hiawatha, Kan.	Aug. 4
Sept. 1	Fairmont, Minn.	Aug. 11
Sept. 2	Ottawa, Kan.	Aug. 4

INDUSTRIAL WORKS

Aug. 14	Victoria, Australia	June 2
Aug. 15	Joliet, Ill.	Aug. 4
Aug. 15	Detroit, Mich.	Aug. 11
Aug. 16	Ossining, N. Y.	Aug. 4
	Adv. Aug. 4 and 11.	
Aug. 17	Columbus, O.	Aug. 4
Aug. 18	Ithaca, N. Y.	July 28
	Adv. July 28, Aug. 4 and 11.	
Aug. 18	Milwaukee, Wis.	Aug. 11

BUILDINGS

Bids Close		See Eng. News-Record
Aug. 15	Cleveland, O.	July 28
Aug. 15	Kerrville, Tex.	July 28
Aug. 15	San Antonio, Tex.	July 28
Aug. 15	Kankakee, Ill.	Aug. 4
Aug. 15	Phila., Pa.	Aug. 4
Aug. 15	Phila., Pa.	Aug. 11
Aug. 15	Kansas City, Mo.	Aug. 11
Aug. 16	Rapid City, S. D.	July 28
Aug. 16	Detroit, Mich.	July 28
Aug. 16	North Judson, Ind.	Aug. 11
Aug. 16	Nashville, Tenn.	Aug. 4
Aug. 16	Centralia, Ill.	Aug. 11
Aug. 16	Wrentham, Mass.	Aug. 11
Aug. 16	Pittsburgh, Pa.	Aug. 11
Aug. 16	Magee, Miss.	Aug. 11
Aug. 16	Brooklyn, N. Y.	Aug. 11
Aug. 17	Le Mars, Ia.	Aug. 11
Aug. 17	Phila., Pa.	Aug. 11
Aug. 17	Warrensville, O.	Aug. 11
Aug. 20	Springfield, Mo.	July 28
Aug. 20	Alliance, O.	Aug. 11
Aug. 22	Houston, Tex.	July 28
Aug. 22	Meadville, Pa.	July 28
Aug. 22	Cleveland, O.	Aug. 4
Aug. 22	Barnum, Ia.	Aug. 11
Aug. 22	Lewiston, Me.	Aug. 11
Aug. 24	Charleston, S. C.	Aug. 11
Aug. 24	South St. Paul, Minn.	Aug. 11
Aug. 26	Kansas City, Mo.	Aug. 11
Aug. 27	Augusta, Kan.	July 21
Aug. 27	Hoytville, O.	Aug. 11
Aug. 29	Cleveland, O.	Aug. 4
Aug. 29	Nashville, Tenn.	Aug. 11
Aug. 30	Mt. Vernon, Ind.	Aug. 4
Aug. 30	Webster City, Ia.	Aug. 11
Sept. 1	Bascom, O.	Aug. 4
Sept. 6	Lincoln, Neb.	July 21
Sept. 9	Ravenna, O.	Aug. 4
Sept. 16	Great Bend, Kan.	Aug. 11
Oct. 1	Williamsport, Pa.	Aug. 4

FEDERAL GOVERNMENT WORK

Aug. 15	Post Office, etc. — Globe, Ariz.	July 21
Aug. 15	Dredging Sleeves—Portland Ore.	July 28
Aug. 15	Hospital—Norfolk, Va.	Aug. 4
Aug. 16	Riprap, Baltimore, Md.	Aug. 4
Aug. 17	Chimney—Bellvue, D. C.	Aug. 4
Aug. 18	Dredging, etc. — Buffalo, N. Y.	July 21
	Adv. July 21 and 28, Aug. 4 and 11.	
Aug. 18	Heating System—Memphis, Tenn.	Aug. 11
	Adv. Aug. 4 and 11.	
Aug. 19	Mezzanine Floor, Appleton, Wis.	Aug. 4
	Adv. Aug. 4.	
Aug. 19	Mezzanine Floors, etc. — Phila., Pa.	Aug. 11
Aug. 22	Dredging—Detroit, Mich.	July 28
	Adv. July 28, Aug. 4 and 11.	
Aug. 22	Dredging—Phila., Pa.	July 28
	Adv. July 21 and 28, Aug. 4 and 11.	
Aug. 22	Buildings—Norfolk, Va.	Aug. 4
Aug. 22	Dredging — Los Angeles, Cal.	Aug. 11
Aug. 23	Building, Wash., D. C.	Aug. 4
Aug. 24	Mechanical Equipment—Boston, Mass.	Aug. 11
Aug. 29	Alterations to Post Office — Eugene, Ore.	Aug. 11
Aug. 30	Hospital—Lake City, Fla.	Aug. 4
Aug. 31	Dredging, Detroit, Mich.	Aug. 4
	Adv. Aug. 4 and 11.	
Aug. 31	Sprinkler System—Charleston, S. C.	Aug. 11
	Adv. Aug. 11.	

Bids Close		See Eng. News-Record
Aug. 31	Ash Bunker. Power House Extension, etc.—Annapolis, Md. Adv. Aug. 11.	Aug. 11
Aug. 31	Gun Shed—Norfolk, Va. Adv. Aug. 11.	Aug. 11
Sept. 2	Barges—Pittsburgh, Pa. Aug. 11.	Aug. 11
Sept. 5	Wreck Removal — Norfolk, Va. Adv. Aug. 11.	Aug. 11
Sept. 5	Steel Barges — Memphis, Tenn. Adv. Aug. 11.	Aug. 11
Sept. 7	Dredging—Phila., Pa. Adv. Aug. 4 and 11.	
Sept. 7	Quay Wall Extension—San Diego, Cal.	Aug. 11
Sept. 7	Riprapping Dike — Mare Island, Cal.	Aug. 11
Sept. 7	Dredging and Filling, ettc.—San Diego, Cal.	Aug. 11
Sept. 7	Crane—South Boston (Boston P. O.), Mass.	Aug. 11
Sept. 7	Crane — Puget Sound, Wash.	Aug. 11
Sept. 14	Pumping Units — Denver, Colo. Adv. July 28 and Aug. 4.	July 28
Sept. 21	Machine Shop—Pearl Harbor, H. T.	Aug. 11

MISCELLANEOUS

Aug. 15	Center Bearing, etc., New Haven, Conn. Adv. Aug. 4.	Aug. 4
Aug. 15	Cargo Shed and Bulkhead, Wilmington, Del.	Aug. 4
Aug. 15	Portland Cement, etc. — St. Paul, Minn.	Aug. 11
Aug. 16	Inspection Shed, Brooklyn, N. Y.	Aug. 4
Aug. 16	Transmission Line—Haddam, Kan.	Aug. 11
Aug. 17	Jib Cranes — Brooklyn, N. Y. Adv. July 21 and 28, Aug. 4 and 11.	July 21
Aug. 17	Culverts, etc. — Ontario, Can.	Aug. 11
Aug. 17	Culverts—Jefferson, La.	Aug. 11
Aug. 18	Test Borings—Phila., Pa.	July 28
Aug. 20	Piers and Abutments—Dayton, O.	July 21
Aug. 22	Dock Wall, etc. — Buffalo, N. Y.	Aug. 11
Aug. 26	Incinerators, Phila., Pa. Adv. July 28, Aug. 4 and 11.	Aug. 4
Aug. 26	Ferry Landing—Palmyra, N. J.	Aug. 4
Aug. 26	Breakwater—Ft. William, Ont.	Aug. 4
Aug. 26	Steam Generating Equipment —Hammond, Ind. Adv. Aug. 11.	Aug. 11
Sept. 7	Dredge—Belzoni, Miss. Adv. Aug. 11.	Aug. 11
Sept. 12	Garbage Disposal—Providence, R. I. Adv. Aug. 11.	Aug. 11
Sept. 17	Railway Ties — Toronto, Ont.	Aug. 11

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N.. C., Winston-Salem—See "Streets and Roads."

O., Cleveland—Cmrs. Cuyahoga Co. plan to build pumping station and 1,500,000 gal. concrete reservoir near Wooster Pike and Brook Park Rd. About $375,000. R. F. MacDowell, Court House, engr.

Ill., Nokomis — City having plans prepared for addition to waterworks system, including pumping station, 100 ft. steel tower, 60,000 gal. steel tank and 4 mi. water mains. About $30,000. Mome & Lunbar, Chemical Bldg., St. Louis, Mo., engrs.

Mo., Hamilton—City voted $75,000 bonds to build water works system. C. F. Ridins, clk. Engineer not selected.

Mo., Wellsville—City election soon to vote on $75,000 bonds to build waterworks system. Rollins Eng. Co., 209 Ry. Exch. Bldg., Kansas City, engrs.

Mo., Wellsville—City having plans prepared for new water mains and pumping station. About $40,000. E. Heckart, mayor. W. B. Robbins Co., Ry. Exch. Bldg., Kansas City, engrs. Noted July 14.

Okla., Granite City—City plans to improve reservoir and build 4,200 ft. pipe line and deep well. About $65,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Ont., North Grimsby—Twp. had plans prepared building 26,000 ft. 6 in. c.i. water mains from here to Clinton Twp. line. About $60,000. T. W. Allan, clk. W. Rutherford, Grimsby, engr.

BIDS DESIRED

N. Y., Carthage—Until Aug. 29, by Village Bd., building 40 x 110 ft. concrete-steel standpipe. A. C. Brady, clk.; advertised in this issue.

N. Y., Scarsdale—Until Aug. 17, by Bd. Water Comrs., Village Hall, Popham and Post Rds., constructing 7 mi. c.i. pipe line extensions. G. W. Field, clk.; advertised in this issue.

Md., Baltimore—Until Aug. 24, by Bd. of Awards, City Hall, for building balancing reservoir, surge tank and closing shaft 13, Contr. 51; advertised in this issue.

O., Sidney—Until Aug. 12, by city, extending water mains. B. Coulson, city engr.; advertised in this issue.

Ill., Matton—Until Aug. 16, by city, c/o F. A. Marman, clk., reconstructing "Paradise" Reservoir, increasing capacity from 500,000,000 to 1,000,000,000 gal., including 3,000 ft. c.i. pipe. C. L. James, Matton, engr. Noted March 24.

Wis., River Falls—Until Aug. 15, by City, c/o G. Smith, mayor, building concrete pump house and filter basin, centrifugal or triplex pumps, etc. About $20,000. J. H. A. Brahtz, 409 Metropolitan Opera House Bldg., St. Paul, Minn., engr. Noted July 14.

S. D., Veblen—Until Aug. 16, by City Auditor, building 100,000 gal. concrete reservoir and repairing elevated tank. Dakota Eng. Co., Mitchell, engrs.

Ont., Goderich — Town receiving bids furnishing gasoline pumping equipment in connection with chlorination and filtration plant. About $70,000. E. H. Darling, Home Bank Bldg., Hamilton, engr. Noted June 23.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., New York—Dept. Water, Gas & Electricity, Municipal Bldg., opened bids Aug. 3, furnishing, delivering and laying water mains and appurtenances in (1) Concord, Jackson, Melrose, Prospect and Trinity Aves., East 144th, East 151st, East 155th and East 158th Sts., Boro of Bronx. (2) 1st Ave., Dyckman, East 117th, West and Marginal Sts., Boro. of Manhattan, Haigh, Pierce and Van Nest Aves., East 138th and Adams Sts., Boro. of Bronx, from Paladino Contg. Co., 437 East 120th St., (1) $139,364, (2) $33,287; J. O'Leary, (1) $145,548; Norton Eng. & Contg. Co., (1) $145,700, (2) $32,969; C. Deblasio, 1764 Honeywell Ave., (2) $31,731. Noted July 28.

★Pa., Phila.—City let contract building 60 in. steel pumping main at Norristown pumping plant, to Beam & Craven Co., Real Estate Trust Bldg. About $165,000.

★O., Maple Heights (Worthington P. O.) —Village let contract laying water mains in Libbey Rd., to Gantos Constr. Co., Columbia Bldg., Cleveland, $28,419; in Arch, Joseph, Phillip, Irwin, Cato, Thomas, McCracken, Sterling, Stanley and Miller Sts., to Lanese Co., Columbia Bldg., Cleveland, $87,180. Noted Aug. 4.

O., South Euclid—Village received bids building 4,780 ft. 8 in. c.i. water mains, from Curro Bros., 12206 Mayfield Rd., Cleveland, $22,536; J. B. Lynn, 343 The Arcade, Cleveland, $25,190; sidewalks, from Euclid Mfg. Co., 1285 West 6th St., Euclid, $10,130.

★O., West Park—See "Sewers."

★Ill., Flora—City let contract extending and improving waterworks, electric light and power plants, laying 4-8 in. watermains and adding one unit to power plant, to Baumes & McDevitt, Ry. Exch. Bldg., St. Louis, Mo. About $40,000. Noted July 21.

★Ia., Arnolds Park—City let contracts building 3 mi. 4 and 6 in. c.i. pipe watermains, to P. N. Kruse, Spencer, $18,000; steel tower and tank, pump house, intakes, centrifugal pumps and chlorination plant, to Wickes Eng. & Constr. Co., 418 Polk Bldg., Des Moines, $9,500. Noted June 2.

★Ia., Des Moines — Bd. Water Works Trustees, c/o C. Denman, mgr., let contract building 1 story, 125 x 125 ft., rein.-con and brick, pump and boiler house, with coal pits and bunkers, to A. H. Neumann & Co., 519 Hubbell Bldg., Des Moines, $173,829. Noted Aug. 4.

Ia., Pella—Waterworks Committee received bids constructing water tank, 200,000 gal. capacity, and 110 ft. tower, from Pittsburgh-Des Moines Steel Co., 9th and Tuttle Sts., Des Moines, steel $11,937; Wickes Eng. & Constr. Co., 418 Pok Bldg., Des Moines, steel $12,974, concrete $19,975. Noted July 21.

★Wash., Marysville—City Comn. let contract building water distributing system, including new pipe line, to H. W. Troutman Co., Seattle, $80,975. Noted July 7.

Cal., Los Angeles—See "Dams."

Sewers

PROPOSED WORK

Fla., Green Cove Springs — City having surveys made laying 2½ mi. 6-8 in. sewers, with manholes, etc. About $25,000. McCrary & Co., 3d Natl. Bank Bldg., Atlanta, Ga., engrs.

N. C., Winston-Salem—See "Streets and Roads."

O., Dayton—City plans to build 5,000 ft 18-24 in. vitr. storm sewer in West 5th St from Miami River to Western Ave. About $25,000. G. F. Baker, City Bldg., city engr.

Ill., Wilmette — City having plans prepared for brick or rein.-con. outflow sewers About $25,000. L. Pearce, 900 South Michigan Ave., Chicago, engr.

Ont., London—City receives bids end of August constructing concrete and steel building to house pumps and equipment. About $50,000. Prices wanted on all materials. H. A. Brazier, city engr. See item under "Prices and Contracts Awarded."

Ont., St. Thomas—City plans to build 11,000 ft. vitr. and concrete storm sewers in various streets. About $35,000. W. C. Miller, City Hall, engr.

BIDS DESIRED

N. Y., S. I., New Brighton—Until Aug. 18, by C. D. Van Name, pres. Richmond Boro, Boro Hall, building sewage treatment plant in block bounded by Quincy St., Cromwell, Boardman and Scotland Aves., also relay pumping stations in Seaside Blvd. and Hinschcliff Ave.

Pa., Phila.—Until Aug. 17, by F. Caven, dir. Pub. Wks., building 3,200 ft. 6 ft. 6 in. concrete sewer in Delaware Ave. from Snyder to Bigler Aves. Cost to exceed $200,000.

D. C., Wash.—Until Aug. 22, by Washington Suburban Sanitary Sewer Comn., Evans Bldg., New York Ave., building 12,250 ft. 6-10 in. sewer, etc. W. T. S. Curtis, comr.; Hyattsville, advertised in this issue.

N. C., Durham—Until Aug. 15, by City Manager, constructing 28,000 ft. 8 in. and 1,200 ft. 10 in. sanitary sewers. About $50,000. H. W. Kueffner, Durham, engr.

O., West Park—Until Aug. 15, by city, building sewers in West 130th and 136th Sts., Wynan, Triskett and Midland Aves. About $40,000. J. Reitz, City Hall, engr.

Wyo., Casper — Until Aug. 22, by City Council, constructing trunk and branch sewers, manholes and flushes, in Sanitary Sewer Dist. 7, involving 2,500 ft. 8 in. pipe, about $4,876; Dist. 8, 17,500 t. 8 in. and 2,140 ft. 12 in., $39,500; Dist. 9, 4,600 ft 8 in., $9,700. F. S. Knittle, city engr.

Mo., Excelsior Springs—Until Aug. 16, by city, c/o W. L. Bates, clk., building 11,300 ft. 8 in. tile sewer in Dist. 6, involving 722 cu.yd. rock excav., 3 flush tanks and 42 manholes, etc. About $40,000. Shockley Eng. Co., Graphic Arts Bldg., Kansas City, engrs.

Okla., Ada—Until Aug. 16, by city, c/o W. B. Jones, clk., laying 10-15 in. vitr.

Sewers (continued)

tile sewers in Dist. 15. About $25,000. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs.

Col., Denver City — See "Streets and Roads."

Cal., Burbank—Until Aug. 23, by City Clerk, constructing sewerage system, involving 1,250 ft. 8 in., 12,775 ft. 10 in., 9,043 ft. 12 in. and 1,128 ft. 20 in. cement or vitr. pipe, 20,000 cu.yd. earth trenching, 200,000 gal. activated sludge plant, etc. Koebig & Koebig, 841 Title Insurance Bldg., Los Angeles, engrs.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Lincoln—City let contract building sewerage system in center of city to M. J. Rogers, 62 Boyd St., Bangor. Cost between $25,000 and $30,000. Noted May 26.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., opened bids Aug. 8, building sewer in (1) Jay Ave. from Willow Ave. to Mueller St., Hull Ave. from Hamilton Ave. to Mueller St. and Burrough Ave. from Hull to Jay Aves., 2nd Ward; temporary sanitary sewer in (2) Jeffrey Ave. from Hillside Ave. to William St., 4th Ward, from G. L. Schrade, 193 Beach 108th St., Seaside, (1a) $26,478, (1b) $24,336; Green Contg. Co., 734 Vernon Ave., Astooria, (1a) $29,130, (1b) $28,692; J. F. Clancy, Inc., (1a) $30,572, (1b) $29,834, (2) $3,740; A. Paino, 2016 East 14th St., Brooklyn, (1b) $25,216; F. Spinelli, 142 Jefferson St., Brooklyn, (2) $3,087; Kennedy & Smith, Inc., 94 Main St., Flushing, (2) $3,623. Noted Aug. 4.

Pa., Phila.—City opened bids Aug. 5, building 6 x 9 ft. sewer in (1) Venango St. from Allen to Edgemont Sts., about $100,000; (2) 3 ft. sewer in Wissihickon Low Lever through Fairmount Park, $80,000; sewer in (3) Napfley St. from Cottage to Frankford Aves., involving (a) 5 ft. vitr. brick sewer, (b) 4 ft. vitr. brick, (c) 4 ft. sewer in hard rock with stone invert, (d) additional excavations below sewer depth, including sheathings, pumping, etc., (e) additional concrete below sewer depth, $125,000; (4) Pratt St. between Okland and Lorette Sts., (a) 6 ft. 6 in. in hard rock with stone block invert, (b) 6 ft. 6 in. in hard rock with vitr. brick, (c) 6 ft. 6 in. in reduced cradle with vitr. brick, (d) 6 ft. 6 in. in full cradle with vitr. brick, (e) 6 ft. in reduced cradle with vitr. brick invert, $90,000; (5) Charles St. from present terminus southwest of Longshore St. to Longshore St. and Longshore St. from Charles to Gilmore Sts., (a) 7 ft. in reduced cradle with vitr. brick invert, (b) 6 ft. 6 in. in reduced cradle with vitr. brick, $75,000, from A. Pernan, Upper Darby, Phila., (1) $49 per lin.ft.; J. Lombardi, 1637 South Broad St., (1) $54.26, (2) $27.33; J Karney, Phila., (1) $60.65; T. Pernan, Upper Darby, Phila., (2) $27.17; Riley & Higgins, Real Etate Trust Bldg., (2) $27.77; O'Neill Co., 127 East Mermaid Lane, (3a) $32.46, (3b) $33.86, (3c) $39 74, (3d) $33.56, (3e) $36.66, (4a) $30.12, (4b) $23.92, (4c) $24.96, (4d) $6, (4e) $7.50; J. J. McHugh, Bala, (3a) $36.65, (3b) $39.86, (3c) $47.88, (3d) $40.42, (3e) $40.88; A. Joffola, Lincoln Bldg., (3a) $34, (3b) $35.69, (3c) $47.21, (3d) $43.70, (3e) $41.68; Curtiss Bros., Longshore St., (4a) $30, (4b) $22, (4c) $24, (4d) $2, (4e) $12, (5a) $48, (5b) $44; F. Buckins, Jr., Kensington and Deal Sts., (4a) $33.37, (4b) $20.50, (4c) $20.50, (4d) $2, (4e) $9; R. Lombardi, Lincoln Bldg., (5a) $49.35, (5b) $49.35; P. Ellis, 3324 North 11th St., (5a) $47.65, (5b) $43.

★Pa., Phila.—City let contract building concrete sewer in Delaware Ave. from Moore St. to Delaware River, to R. Lombardi, Lincoln Bldg. About $35,000.

★Pa., Phila.—City let contract to A. Jaffolla, Lincoln Bldg., laying 6 ft. 6 in. concrete sewer in Ognotz Ave. between 67th and Andrews Aves., about $100,000; Ognotz Ave. from Washington Lane to 79th Ave., $40,000; Ognotz Ave. between Andrews and 72nd Aves., $95,000; Ognotz Ave. from 72nd Ave. N. and Washington Lane, $65,000.

★O., Dayton—Montgomery Co. let contract building storm and sanitary sewers in Fairview Sanitary Sewer Dist. 1, to C. F. Smith & Son, 54 Davies Bldg., $164,459. Noted Dec. 2.

★O., West Park—City let contract laying sewers and water mains, in Sprecher, Carrington, Metherson, Leeila, Williams, Cloverdale Aves. and West 127th St., to Sprague & Burkhart. 12011 Woodland Ave., Cleveland, $33,495; Belmont, Herman and Rockport Aves., to E. Egan, 720 Caxton Bldg., Cleveland, $18,482. Work involves 8,200 ft. 12-24 in. vitr. pipe. Noted July 14.

★S. D., Watertown—City let contract building storm sewers in various streets, to Bruce-Bickelhaupt Co., Yankton, $41,700.

★Mo., Excelsior Springs—City let contract building sewers in five districts, to Harness Bros., Ottumwa, Ia. About $40,000.

★Ont., London—City let contract furnishing electrically driven sewage pumps, to Northern Fdry. & Machine Co., Bay St., Sault Ste. Marie, $9,378, force mains, to J. R. McKnight Constr. Co., 88 St. David St., Toronto, $11,890.

★Que., Montreal—Administrative Comn. let contract building 1¾ mi. 2 x 3 ft. brick sewers in Gouin Blvd., to A. Thazaw, c/o E. Fusey, Engr. of Sewers, City Hall, $26,835. Noted June 30.

Bridges

PROPOSED WORK

N. C., Elkin—City plans to build 200 ft. rein.-con. bridge, 18 ft. roadway, two 5 ft. sidewalks, piers, abutments, etc. About $25,000. J. W. Ring, mayor.

Fla., Daytona—City, c/o J. L. Pepper, secy. citizens com., plans to build 1,000 ft. bridge across river, probably timber approaches with steel lift. About $100,000.

Kan., Lawrence—Douglas Co. had plans prepared for Patton Bridge, to have one 108 ft. through truss span, two 30 ft. approaches and 16 ft. roadway; Gress, Deister and Hammer Bridges, each 24 ft. long, 20 ft. wide, rein.-con. T girder spans. B. L. Wolfe, Lawrence, engr.

Kan., Marysville—Marshall Co. plans to build several bridges, including Deunsing Bridge, 22 ft. T girder span, involving 95 yd. dry excav., 24.5 yd. Class A and 91 yd. Class C concrete, 3,682 lb. steel; Hull Bridge, 42 ft. truss span, 16,426 lb. structural steel and 2,296 ft. flooring, Minehan Bridge, 50 ft. truss span, 72 yd. wet excav., 61 yd. Class A and 53 yd. Class C concrete, 10,374 lb. reinforcing and 20,773 lb. structural steel, etc.; Gregg Bridge, 40 ft. T girder span, 46.2 yd. Class A and 2.3 yd. Class E concrete, 10,328 ft. flooring, etc. T. G. Gallup, Marysville, engr.

Minn., Winona—Winon Co. (Winona), Buffalo Co., Wis. (Alma), States of Minnesota and Wisconsin and Federal Government plan to replace interstate bridge over Mississippi River, between here and Alma, steel and concrete. About $500,000. A. Baeuerlen, aud.

Mo., Steelville—City had plans prepared building rein.-con. span bridge 148½ ft. long, 30 ft. wide, including approaches. About $45,000. Elston, Axon & Russell, McDaniel Bldg., Springfield, engrs.

Tex., Highland Park (Dallas P. O.)—See "Streets and Roads."

Ont., Ottava—Bd. Control, City Hall, having estimates made for 2 rein.-con. bridges over Grand Trunk Ry., on Turner and Bell Sts. About $90,000. A. F. Macallum, city engr.

BIDS DESIRED

Conn., Bridgeport—Until Aug. 16 by Dept. Pub. Wks., repairing and strengthening Congress St., bridge over Pequonnock River, rein.-con. About $50,000. Former contract rescinded. Fay, Spofford & Thorndike, 15 Beacon St., Boston, Mass., engrs. Noted June 23.

North Carolina—Until Aug. 23, by State Highway Dept., at div. office, Marion, building bridges on State Project 571, McDowell Co., involving 2,140 cu.yd. Class "A," 680 cu.yd. Class "B" and 40 cu.yd Class "C" concrete, 260,900 lb. reinforcing steel, etc. About $87,000. C. M. Upham, Raleigh, state highway engr.

Ill., Valley — Until Aug. 23, by Comrs. Valley City Drainage and Levee Dist., Pike Co., at office E. T. Perkins Eng. Co., engrs., 1211, 38 South Dearborn St., Chicago, constructing one 80 ft. span steel highway bridge and 120 ft. wood pile trestle. W. Severns, chn.; advertised in this issue.

Ill., Vandalia—Until Aug. 18, by J. V. Waddell, co. supt. highways, Fayette Co. (Vandalia) and C. E. Chester, co. supt. highways, Shelby Co., (Shelbyville) at St. Francis Hotel, Pana, constructing one 60 ft. steel span, 14 ft. roadway, on existing tubular piers, over Mitchell Creek, between Fayette and Shelby Counties.

Ohio—Until Aug. 19, by Dept. Highways and Pub. Wks., Columbus, building bridge on Sect. J, I.C.H. No. 36, Cuyahoga Co. About $31,250. L. C. Herrick, dir. highways.

O., Cleveland—Until Aug. 24, by Comrs. Cuyahoga Co., building steel lift bridge on concrete abutments over Cuyahoga River, involving 1,150 cu.yd. concrete, 360,000 lb. structural and 85,000 lb. reinforcing steel, 3,000 cu.yd. earth approach and fill, 1,174 sq.yd. wood blocks. About $81,000. W. A. Stinchcomb, Court House, engr.

Tex., Comanche—Until Aug. 15, by F. J. Reese, judge Comanche Co., constructing steel span bridges on concrete piers and abutments and concrete slab bridges on Highways 18 and 22, involving 2,212.3 cu. yd. Class A and 518.5 cu.yd. Class B concrete, 204,621 lb. reinforcing and 138,600 lb. structural steel, 1,848 lin. ft. concrete piling, 1,043 cu.yd. dry and 729 cu.yd. wet structural excav., etc. About $85,000. L. D. Parks, De Leon, co. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★R. I., Warwick—State Bd. Pub. Rds., Providence, let contract constructing 3 span rein.-con. arch bridge between here and Cranston, 205 ft. long, 48 ft. wide, to T. I. Ellis, 171 Westminster St., Providence, $40,393. Noted Aug. 4.

New Jersey—Until Aug. 24, by State Highway Comn., Broad St. Bank Bldg., Trenton, building Bridge K on Route 4 over Jobs Creek, south of Tuckerton, Burlington Co.; Bridge 14, M. P. 2.1-W, Bridge 12, M. M. 3.2-W, Culvert 15, M. P. O. 8-W, Culvert 13, M. P. 2.5-W, Culvert 11, M. P. 4.2-W and Culvert 9, M. P. 4.5-W on Route 12, Sect. 3, between Phillipsburg and Washington, Warren Co., C. A. Mead, 790 Broad St., Newark, bridge engr.; advertised in this issue.

★Kentucky—State Highway Comn., Old Capitol Bldg., Frankfort, let contract building substructures for two 50 ft. steel spans, concrete floor, one 40 ft. steel span, 16 ft. roadway, wood floor, one 75 ft. steel span, wood floor, Barren and Cumberland Counties, to Kentucky Bridge Co., Louisville, $40,194; superstructures for two 50 ft., one 40 ft. and one 75 ft. steel spans, super and substructures for one 100 ft., one 75 ft. and one 50 ft. steel spans, Barren, Cumberland and Metcalf Counties, to Vincennes Bridge Co., Vincennes, Ind., $32,981.

★Kentucky—Clark and Madison Counties let contract building five 30 ft., two 20 ft., three 12 ft. and one 6 ft. span bridges and three 12 ft. concrete slab spans, to Monohan & Forbes, Richmond, $30,280. Noted July 21.

★N. C.., Charlotte — Meckenburg Co. (Charlotte) and York Co., S. C., (York), let contract building bridge over Catawba River, to Hardaway Constr. Co., Charlotte, $96,644. Noted July 28.

Ohio—Dept. Highways and Pub. Wks., Columbus, opened bids Aug. 5, building bridges in following counties:

Allen Co., Sect. "K" Lima-Sandusky Rd., from H. B. Waters, Columbus, $1,530; E. K. Jennings & Son, Fitchville, $1,644; H. A. MacDonald, Norwalk, $1,755.

Lake Co., Sect. "J" Cleveland-Buffalo Rd., rein.-con. arch bridge, 846.5 ft. long, 24 ft. pavement, 24 ft. roadway, F. W. Mark, Leader-News Bldg., Cleveland, $92,800; Towell & Harris, Painesville, $93,535 · Jack Walsh Co., Youngstown, $95,316.

Marion Co., Sect. "G" Marion-Galion Rd., V. S. Secord, Marion, $1,087; G. E. Druyer, Marion, $1,110; H. B. Waters, Columbus, $1,516. Noted July 28.

★Michigan—State Highway Dept., Lansing, let contract building Bridges 660401 and 660402, both 35 ft. spans, concrete arches, in Ontonagon Co., to G. Anderson, Marquette, $28,508. Noted July 21.

Mich., Flushing — State Highway Dept., Lansing, let contract building Bridge 250801, 168 ft. long, 3 span concrete arch, here, involving 1079.4 cu.yd. rein.-con. and 879.9 cu.yd. concrete, to Smith & Nichols, Hastings, $49,604. Noted June 9 under Michigan.

Wis., Appleton—City received bids Aug. 3, building 385 ft. rein.-con. bridge over Lowe St., from Wausau Iron Wks., Wausau, $59,800; Koss Constr. Co., 2818 5th St.,

Bridges (Continued)

Des Moines, Ia., $63,305; Blake Constr. Co., 627 South River St., Appleton, $65,252. Noted July 21.

★Ia., Marhalltown — Marshall Co. let contract building two 18x50 ft. pony truss spans, one 24 x 26 ft. I-beam span, 10 circular culverts, 24 in. in diam., 15 rein.-con. box culverts, involving 42,000 lb. structural steel, 63,400 lb. steel bars, etc., to Alexander & Higbie, 2733 6th St., Des Moines, $25,000.

Ia., Onawa—Monona Co. received bids building 78 rein.-con. box culverts, from 2 x 2 ft. to 8 x 8 ft.; one 20 x 42 ft. concrete arch span; one 20 x 60 ft., one 20 x 80 ft., and one 20 x 50 ft. steel pony truss, on Primary Rd. Project 48, involving 2,837 cu.yd. rein.-con., 179,680 lb. structural and 189,900 lb. bar steel, from F. E. Marsh & Co., Jefferson, $81,500; Pittsburgh-Des Moines Steel Co., 9th and Tuttle Sts., Des Moines, $90,030; Pickus Eng. & Constr. Co., Davison Bldg., Sioux City, $82,569. Noted July 28.

★S. D., Winner—Lyman and Tripp Counties let contract building Winner-Kennebec Bridge, steel, with wood floor, over White River southeast of here, to Standard Bridge Co., 1302 City Natl. Bank Bldg., Omaha, Neb., $34,431. Noted June 9.

Tex., Wheeler—Wheeler Co. received bids building 1,380 ft. straight concrete pile trestle bridge, 16 ft. wide, over north fork of Red River, involving 141.5 cu.yd. Class A concrete, 241,770 lb. plain steel bars, 12,402 lin.ft. concrete piling, 9,569 cu.yd. earth borrow and 2,051.8 cu.yd. earth roadway excav., from Holt Bridge Co., Canadian, $97,826; Unit Constr. Co., Title Guarantee Bldg., St. Louis Mo., $108,146; Brown, Abbott Co., Loraine, $108,773.

★California — State Highway Dept., 515 Forum Bldg., Sacramento, let contract building bridge across Bear Gulch, near Garbersville, on Div. 1, Route 1, Sect. B, Humboldt Co., to F. H. Green, Eureka, $33,600; bridges over Shasta River, Park and Willow Creeks, on Div. 2, Route 3, Sect. B, Siskiyou Co., to T. H. Polk, Chico, $18,510. Noted Aug. 4.

Cal., El Monte—Comrs. Los Angeles Co. (Los Angeles), opened bids July 25, building bridge over Rio Hondo on El Monte Pomona Rd., from C. A. Fellows, Central Bldg., Los Angeles, $86,700; E. L. Garretson & Son, Los Angeles, $97,500; Ross Constr. Co., Los Angeles, $112,263. Noted July 14.

Dams

BIDS DESIRED

N. S., Halifax—Until Aug. 18, by Provincial Water Power Comn., c/o K. H. Smith, c. engr., building concrete storage dam at foot of Big Indian Lake, 20 mi. from here. About $57,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Cal., Los Angeles—Los Angeles Co. received bids July 25, building concrete dam in Live Oak Canyon, from C. H. Hudson, 508 Marsh-Strong Bldg., $55,400; M. Ryan & Son and Roberts Co., Los Angeles, $55,530; Bent Bros., 825 Central Bldg., $62,192. Noted July 14 under "Waterworks."

Excavation and Dredging

PROPOSED WORK

Wyo., Riverton — Drainage — Riverton Valley D. D., c/o P. B. Dykeman, secy., plans to sell $100,000 bonds to install 9 mi. 10-21 in. tile drains, involving 12,500 cu.yd. excav. A. H. Ayers, Box 246, engr.

BIDS DESIRED

Ia., Mason City—Drainage—Until Sept. 6, by Cerro Gordo Co., building D. D. 98, involving 9,400 lin.ft. 6-14 in. tile; D. D. 102, 12,500 lin.ft. 6-12 in.; D. D. 100, Sect. 1, 20,350 ft. 6-20 in., and Sect. 2, 7,800 ft. 6-10 in.; D. D. 107, 9,650 ft. 6-12 in. About $25,000. P. Wiegand, aud.

Minn., Redwood Falls—Ditch—Until Aug. 23, by Redwood Co., building Co. Ditch 54, involving 210,318 cu.yd. excav., about $35,754; Co. Ditch 66, 37,300 lin.ft. 6-24 in. tile, etc., $26,448; Co. Ditch 70, 200 ft. 18-24 in. sewer pipe, 31,050 ft. 6-20 in. tile, $24,481. B. J. Reynolds, Redwood Falls, engr. for Ditch 54. F. B. Forbes, Redwood Falls, engr. for Ditch 66 and 70.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

Wis., Racine—Ditch—Hood Creek D. D., 1418 Park Ave., received bids Aug. 3, building 86,000 cu.yd. open ditch work in Mt. Pleasant, Yorkville and Caledonia Twps., from P. Youder, Napanee, Ind., at $0.1148 per cu.yd.; furnishing and laying tile on above, from L. Peterson, Clark St., $52,875. Noted July 28.

★Minn., St. Peter—Ditch—Nicolett Co. let contract building Co. Ditch 71, involving 15,885 lin.ft. open work, to D. Coleman, Forest City, Ia., $7,679; 44,550 lin.ft. 8-24 in. tile, to Judson Concrete Co., Judson, $14,000; tile labor, to P. Nielsen, Glidden, Ia., $9,503. Noted July 21.

Streets and Roads

PROPOSED WORK

Mass., Greenfield—Bd. Selectmen plans to pave 1¼ mi. Deerfield St., cement concrete. About $40,000. Private plans.

N. J., Trenton—City Comn. plans to pave Pennington and North Clinton Aves., also repave North Clinton Ave. from Pennsylvania R.R. to Mulberry St. and Pennington Ave. from Warren to Willow Sts., vitr. brick and asphalt. About $59,500. A. Swan, city engr.

Pa., Phila.—F. H. Craven, city dir., soon receives bids grading, curbing and paving 2 mi. Cobbs Creek Parkway from Woodland to Florence, 60 ft. wide, asphalt on concrete base. About $170,000. F. Dunlap, 216 City Hall, engr.

North Carolina—State Highway Dept., Raleigh, Plans to grade, drain and pave with concrete or some asphaltic material on concrete base 7 mi. road between Reidsville and Wentworth, State Project 627, Rockingham Co., about $225,000; clear, grub, drain, grade, bridge and surface 30 mi. road from Martin Co. line to Creswell, State Project 544, Washington Co., $250,000; 14 mi. road between Hillsboro and Prospect Hill, State Project 625, Orange and Caswell Counties, $100,000. C. M. Upham, state highway engr.

N. C., Charlotte—City soon receives bids paving East 4th and other streets, asphalt. About $150,000. J. Firth, Charlotte, engr.

N. C., Winston-Salem—City plans to pave various streets, also extend waterworks and sewerage systems. About $350,000. W. T. Ritter, secy. Chamber Commerce.

Florida—State Highway Comn., Tallahassee, having plans prepared grading and hard surfacing 10 mi. road from Lake City to Baker Co. About $40,000. C. A. Browne, state highway engr.

Fla., Bartow—Polk Co., and State Highway Comn., Tallahassee, plan to pave 21 mi. road from Haines City to Frostproof, sheet asphalt or rock base. About $42,000. R. H. Brown, Bartow, engr. Noted May 19.

Fla., Bushnell—City voted $30,000 bonds to pave 4 mi. various streets. Engineer not announced.

Fla., Ft. Pierce—St. Lucie Co. and State Highway Dept., Tallahassee, plan to widen portion and pave 18 mi. road from Ft. Pierce to Okeechobee Co. line, 6-15 ft. wide, sheet asphalt on rock. About $52,000. C. A. Browne, Tallahassee, state highway engr.

Fla., Green Cove Springs—City having surveys made grading and paving 6 mi. various streets, 16-24 ft. wide, vitr. brick. About $40,000. McCrary & Co., 3rd Natl. Bank Bldg., Atlanta, Ga., engrs.

Fla., West Palm Beach—Palm Beach Co. plans to widen 40 mi. Dixie Highway from Stuart to Broward Co. line, from 30 to 60 ft., brick or asphalt. R. P. Goodman, West Palm Beach, engr.

Ohio—State Highway Comn., Columbus, rejected bids opened July 22, building roads in the following counties:

Greene Co., Sect. "B" Springfield-Jamestown Rd., 6.9 mi. grading, constructing bridges and culverts and paving with either bituminous macadam (A-1) or (T-1).

Knox Co., Sect. "B-1" Mt. Vernon-Newark Rd., 3.39 mi. grading, constructing drainage structures and paving with monolithic brick.

Monroe Co., Sect. "F" Woodsfield-Sistersville Rd., 2.164 mi. grading, constructing drainage structures and paving with bituminous macadam on rolled base.

Warren Co., Sect. "C-1" Columbus-Cincinnati Rd., 4.42 mi. grading, constructing bridges and culverts and paving with bituminous macadam or rein.-con. Noted July 28.

O., Columbus—Franklin Co. having plans prepared grading, building bridges and culverts and paving 10.82 mi. Alkire Rd., 16 and 18 ft. wide, bituminous macadam, cost $388,000; 21,717 ft. Columbus-Millersburg Rd., I. C. H. No. 23, 19 ft. wide, brick; 7.57 mi. Morse Rd., 16 ft. wide, waterbound macadam with bituminous top course, $266,500. C. C. Lattimer, Court House, engr.

O., Dayton—City plans to pave 5,000 ft. West 5th St. from Miami River to Western Ave., involving 22,000 sq.yd. vitr. brick or asphaltic concrete on concrete base. About $110,000. G. F. Baker, City Bldg., city engr.

Ill., Belvidere—City plans to pave Whitney St., vitr. brick on concrete base. About $25,000. W. W. Marean, Belvidere, engr.

Ia., Maysville (Walcott P. O.)—Village plans to pave about 6 blocks Main St. About $25,000. W. Wamser, clk.

Minnesota—Clay Co. (Moorhead) and Wilkin Co. (Breckenridge) having plans prepared grading 40 mi. State Highway 6, from Breckenridge to Wolverton and along Red River to Moorhead, 24 ft. wide. About $80,000. C. M. Babcock, 920 Guardian Life Bldg., St. Paul, state highway engr.

Minn., Austin—Mower Co. having plans prepared grading 18 mi. Job. 2201, between Adams and Lyle, cost $47,500; 10.5 mi. Job. 2202, between LeRoy and Adams, $23,000; 14 mi. Job 2204, between Racine and Sargeant, $37,500. A. C. White, co. engr.

Minn., St. Paul—City plans to pave about 8 blocks Dodd Rd. from Smith Ave. S., to Sidney St. About $27,000. O. Claussen, city engr.

S. D., Aberdeen—Brown Co. (Aberdeen), and Dickey Co., N. D. (Ellendale), plan to grade 20 mi. state line road. About $40,000. G. A. Peppers, Aberdeen, and C. C. Misfeldt, Ellendale, auds.

N. D., Minot — Ward Co. having plans prepared grading road from here on Max Rd. 14 mi. southward and road from Foxholm to point northwest of Carpio, 15 mi. About $58,000. R. W. Kennard, aud.

Tex., Comanche — Comanche Co. having plans prepared grading, gravel surfacing, draining and building bridges on 17.4 mi. State Highway 18, involving 18,330 cu.yd. borrow and 1,086 cu.yd. structural excav., 3,026 cu.yd. 1:2:4 and 486 cu.yd. 1:2½:5 concrete, 92,200 lb. structural and 257,434 lb. reinforcing steel, 36,350 cu.yd. gravel surfacing, etc. About $229,000. L. D. Parks, De Leon, co. engr.

Tex., Glen Rose—Somerville Co. having plans prepared grading, gravel surfacing and draining 9.1 mi. State Highway 25 from county line to Milan Farm, 16 ft. wide. About $74,000. Burks, Firmin & Hart, co. engrs.

Tex., Highland Park (Dallas P. O.)—City voted $100,000 bonds to pave and construct bridgees on St. Johns Drive, Euclid, Abbot, Crescent and Cowper Aves. G. D. Fairtrace, Dallas, engr.

Tex., Lufkin—Angelina Co. election Aug. 20 to vote on $1,450,000 bonds to gravel surface and build bridges and culverts on about 175 mi. state highways and lateral county roads. L. Acker, Nacogdoches, co. engr.

Tex., Quitman—Wood Co. having plans prepared grading, gravel surfacing and draining 4.43 mi. Highway 15 from Mineola to Smith Co. line, involving 35,337 cu.yd. borrow, 20,000 cu.yd. earth and 416 cu.yd. foundation excav., 453 cu.yd. concrete, 6,821.6 cu.yd. gravel, 33,634 lb. reinforcing steel, etc. About $83,250. J. E. Blair, Mineola, engr.

Okla., Alva—City soon receives bids for 6,200 sq.yd. brick pavement. Benham & Mullergren, Firestone Bldg., Kansas City, Moo., engrs.

Idaho—State Highway Dept., Boise, and Federal Government plan to grade and partly gravel surface 24.12 mi. Forest Rd. from Noble to Montana State Line, 20 ft. wide, Lincoln Co., involving 121,320 cu.yd.

Streets and Roads (Continued)

earth and 12,495 cu.yd. rock excav., etc. About $190,640. B. J. Finch, c/o U. S. Bureau of Pub. Roads, Ogden, Utah, engr.

Utah—State Highway Comn., Salt Lake City, plans to grade and gravel surface 30 mi. Post Rd. from Levan to Scipio, 20 ft. wide, Juab Co. About $348,000. B. F. Finch, Ogden, U. S. Dist. Rd. engr.

Utah, Ogden—City plans to improve Sidewalk Dist. 153, involving 108,475 sq.yd. 4 in. sidewalks and 6,500 cu.yd. excav. About $32,800. T. M. Tracy, city engr.

Nevada — State Highway Dept., Carson City, and Federal Government plan to grade and repair trestles and bridges on 15.43 mi. Owens-Indian Springs Ro., Federal Aid Project 41, 16 ft. wide, Clark Co., about $44,000; grade and drain 11.37 mi. Las Vegas-St. Thomas Rd., Federal Aid Project 43, 20 ft. wide, Clark Co., $136,000; 8.35 mi. road from west county line to Vivian, Federal Aid Project 15, 20 ft wide, Elko Co., $60,000; grade 4 mi. Gardnerville-Holbrook Rd., Federal Aid Project 4, 20 ft. wide, Douglas Co., $22,000; gravel 8.52 mi. road from west county line to Battle Mountain, Federal Aid Project 16, 20 ft. wide, Lander Co., $28,000; grade and gravel surface 8.20 mi. Leeteville-Hazen Rd., Federal Aid Project 34, 20 ft. wide, Churchill Co., $121,000; 5 mi. Fallon-Westgate Rd., Federal Aid Project 45, 20 ft. wide, Churchill Co., $55,000; 12.17 mi. Eureka-Hay Ranch Rd., Federal Aid Project 31, 20 ft. wide, Eureka Co., $111,000; 7.04 mi. Yerington-Wilson Rd., Federal Aid Project 33, 20 ft. wide, Lyon Co., $101,000; 22.95 mi. Pancake-Summit-Ellapah Rd., Federal Aid Project 44, 20 ft. wide, White Pine Co., $259,000. B. J. Finch, U. S. Bureau of Pub. Roads, Ogden, Utah, engr.

Cal., San Diego—City soon receives bids paving 17,167 ft. Lytton, Voltaire and Rosecrans Sts., Chatsworth and Catalina Blvds., involving 1,994 lin.ft. concrete curbing, 3,528 sq.ft. oiled gutter, 14,440 cu.yd earth excav. and 14,002 cu.yd. earth embankment. Separate bids on (a) 384,225 sq.ft. asphaltum and stone screenings wearing surface ¾ in. thick on 5 in. portland cement concrete base, (b) 1½ in. Warrenite bitulithic wearing surface on 3 in. asphaltic concrete base. F. A. Rhodes, City Hall, engr.

Ont., Hamilton—City having plans prepared paving, curbing and guttering about 8,000 sq.yd. McNab St. from Cannon to Stewart Sts., asphalt on concrete base. About $36,000. E. R. Gray, city engr.

Ont., Ottawa—Dominion Government receives bids early in September repaving Wellington St. from Bank St. west, asphalt. About $62,000. R. C. Wright, Dept. Pub. Wks., engr.

Ont., Stratford—Town had plans prepared grading, concrete curbing and guttering and surfacing Erie St. from St. Patrick to West Gore Sts., bituminous concrete on concrete base, about $33,283; Erie St. from West Gore to Chestnut Sts., bituminous, $17,952; Erie St. from Chestnut St. to city limits, bituminous on concrete base, $6,655; Water St. from Nile to Waterloo Sts., bituminous concrete on concrete base, $8,352; McNab from Grant to Whitlock Sts., $5,821; Folstaff from Downie to Front Sts., $17,275; Britannia from John to Mornington Sts., $16,060. A. B. Manson, Stratford, engr.

BIDS DESIRED

Massachusetts—Until Aug. 16, by Dept. Pub. Wks., Division of Highways, Room 413 State House, Boston, gravel surfacing about 1,525 ft. highway in Rutland; paving about 11,000 ft. in Holden, bituminous macadam. J. N. Cole, comr.

Rhode Island—Until Aug. 24, by State Bd. Pub. Rds., State House, Providence, constructing 4.19 mi. highway beginning at West Kingston station and extending easterly and southeasterly through Kingston village to Rocky Brook; advertised in this issue.

N. Y., New York—Until Aug. 17, by H. Bruckner, pres. Bronx Boro., Municipal Bldg., regulating, grading, setting curb, laying sidewalks, etc., in (1) West 188th St. from University Ave. to Crotona Aqueduct, (2) East 156th St. from Southern Blvd. to Whitlock Ave., (3) East 149th St. from Timpson Pl. to New York, New Haven & Hartford R.R., (4) Ford St. from Webster to Tiebout Aves., (5) Spencer Ave. from West 261st to 263rd Sts.; paving (6) East 170th St. from Clay to Morris Aves., sheet asphalt, from Morris to Grant Aves., bituminous concrete; repaving (7) East 171st St. from Park to Washington Aves., granite block on concrete foundation; building sewers in (8) Pelham Parkway north from Fenton to Bouck Aves., Astor Ave. between Seymour and Bouck Aves., Wilson Ave. between Pelham Parkway North and Waring Ave., Young Ave. between Pelham Parkway North and Waring Ave., Fish Ave. between Pelham Parkway North and Waring Ave.; (9) Osborne Pl. between Burnside Ave. and West 179th St.; protecting with rock fill outlet sewer at (10) White Plains Ave. and East River in connection with the contract for extension of sewer at White Plains Ave. and East River from point about 100 ft. north of bulkhead line to pierhead line.

N. J., Magnolia—Until Aug. 16, by Boro., laying 180,000 sq.ft. concrete sidewalks, involving 10,000 cu.yd. earth excav., etc. J. J. Albertson, Court House, Camden, engr. Noted May 19.

N. J., Somerville—Until Aug. 15, by Boro. paving Doughty Ave., South, Union and Somerset Sts. J. B. Varley, clk.; advertised in this issue.

Pa., Phila—Until Aug. 16, by F. H. Craven, city dir., paving with asphalt and vitr. brick gutters assessment work on Lawrence St. from Rascomb to Rockland Sts. and Upland St. from 67th to 69th Sts., involving 680 lin. ft. granite concrete curbing, 697 sq.yd. gutter, 4,285 sq.yd. asphalt, 827 sq.yd. concrete, about $25,000; repaving with asphalt vitr. brick gutters, redressed granite block between car tracks on 21st St. from Susquehanna to York Aves., 23rd St. from Parrish to Poplar Sts., 26th St. from Poplar to Girard Aves., 28th St. from Girard to Master Sts., 29th St. from Girard to Oxford Sts., 1,640 sq.yd. vitr. brick, 469 sq.yd. new granite block, 11,956 sq.yd. asphalt, 3,137 cu.yd. concrete base, $52,000; Pearl St. from 54th to 55th Sts., Susquehanna Ave. from 19th to 22nd Sts., 757 sq.yd. vitr. brick, 321 lin. ft. concrete, 1,147 cu.yd. concrete base, 4,700 sq. yd. asphalt, $27,000; Lehigh Ave. from 29th to 33rd Sts., 716 sq.yd. vitr. brick, 3,033 sq.yd. redressed granite block, 6,397 sq.yd. asphalt, 321 lin. ft. granite concrete curbing, 2,022 cu.yd. concrete base, $52,000; 17th St. from Porter to Shunk Sts., Porter from 16th to 17th Sts. Chadwick St. from Tasker to Mifflin Sts., 853 sq.yd. vitr. brick, 81 sq.yd. new granite block, 4,906 sq.yd. asphalt, 500 lin. ft. granite concrete curbing, 957 cu.yd. concrete base, $32,000; Carpenter St. from 22nd St. to Grays Ferry Ave., 24th St. from Christian to Kimball Sts., 22nd St. from Fitzwater to Washington Sts., 1,409 sq.yd. vitr. bric, 275 sq.yd. new granite block, 9,246 sq.yd. asphalt, 1,909 cu.yd. concrete base, $44,000; Chetten Ave. from Limekiln Pike to Wester Ave., 550 sq.yd. vitr. brick, 2,018 sq.yd. redressed granite block, 3,181 sq.yd. asphalt, 900 cu.yd. concrete base, 480 cu. yd. concrete curbing, $30,000; repaving with redress granite brick 2nd St. from South to Wharton Sts., 10,000 sq.yd. granite block redress, 1,890 cu.yd. concrete base, $40,000; 15th St. from Indiana Ave. to Pike St., 13,300 sq.yd. granite block redress, 2,414 cu.yd. concrete base, $54,000; Sansom St. from Broad to 18th St. and 9th St. from Chestnut to Spruce Sts., 8,200 sq.yd. redressed granite block, 1,320 cu.yd. concrete base, $25,000; Lombard St. from Broad to 27th Sts., 12,800 sq.yd. redressed granite block, 2,220 cu.yd. concrete base, $48,000; Lombard St. from Delaware to Broad Sts., 17,700 sq.yd. redressed granite block, 3,100 sq.yd. concrete base, $70,000; Girard Ave. from Lancaster to 54th Sts., 12,480 sq.yd. redressed granite block, 2,330 cu.yd. concrete base, $60,000; Frankford Ave. from Kensington to Church Aves. and Kensington Ave. from Frankford Ave. to Frankford Creek, 7,780 sq.yd. redressed granite block and 1,350 cu.yd. concrete base, $25,000; Frankford Ave. from Wakeling to Bridge Sts., 7,100 sq.yd. redressed granite block, 800 lin. ft. 6 in. vitr. clay pipe, 412 lin. ft. granite curbing and 1,300 cu. yd. concrete base, $33,000; Girard Ave. from Broad to South College Aves., South College Ave. from Girard to Poplar Sts., Poplar St. from South College to West College Aves., West College Ave. from Poplar St. to Girard Ave. and Girard Ave. from West College Ave to east end of Girard Ave. bridge, 1,464 sq.yd. granite block, and 3,497 cu.yd. concrete base, $56,000; Columbia Ave. from 23rd to 33rd Sts., 788 sq.yd. granite block and 1,880 cu.yd. concrete base $35,000. D. Dunlap, City Hall, engr.

D. C., Wash. — Until Aug. 22, by Dist. Comrs., 509 Dist. Bldg., grading various streets. C. H. Rudolph, comr.; advertised in this issue.

North Carolina—Until Aug. 22, by State Highway Dept., at div. office, Elkin, grading, draining and surfacing 7.16 mi. State Project 543, Stokes Co., involving 8 acres clearing and grubbing, 40,000 cu.yd. common and 5,900 cu.yd. rock excav., 1,632 ft. 15-18 in. concrete pipe, 18,925 cu.yd. top soil, 39 cu.yd. Class "A" and 100 cu.yd. Class "B" concrete, and 2,890 lb. reinforcing steel, etc., about $35,000; 3.14 mi. State Project 527, Ashe Co., involving 13,300 cu. yd. common and 1 650 cu.yd. rock excav., 842 ft. 15-30 ft. corrugated metal pipe, 33,170 sq.yd. concrete or asphaltic pavement, 214 cu.yd. Class "A" and 86 cu.yd. Class "B" concrete, and 16,530 lb. reinforcing steel, etc., about $106,000. C. M. Upham, Raleigh, state highway engr.

North Carolina—Until Aug. 23, by State Highway Dept., at div. office, Marion, grading, draining and surfacing 4.97 mi. State Project 505, Mitchell Co., involving 21,400 cu.yd. common and 6,000 cu.yd. rock excav., 2,320 ft. 18-30 in. corrugated metal pipe, 211 cu.yd. Class "B" concrete, and 26,200 sq.yd. concrete or asphaltic pavement, etc., about $135,000; 6.55 mi. State Project 547, Rutherford Co., involving 37,700 cu.yd. common and 15,200 cu.yd. rock excav., 15,400 cu.yd. top soil, 69 cu.yd. Class "A" and 41 cu.yd. Class "C" concrete, 520 cu. yd. rubble masonry, 8,330 lb. reinforcing steel, etc., $50,000; 7.2 mi. State Project 571, McDowell Co., involving 5 acres clearing and grubbing, 80,000 cu.yd. common and 3,300 cu.yd. rock excav., 1,530 ft. 18-24 in. corrugated metal pipe, 16,650 cu.yd. top soil surfacing, 141 cu.yd. rubble masonry, etc., $55,000; 10.05 mi. State Project 572, McDowell Co., involving 24 acres clearing and grubbing, 159,100 cu.yd. common and 105,400 cu.yd. rock excav., 6,608 ft. 18-30 in. corrugated metal pipe, 23,420 cu.yd. top soil, 400 cu.yd. rubble masonry, 776 cu. yd. Class "A" concrete, 82,390 lb. reinforcing steel, etc., $275,000. C. M. Upham, Raleigh, state highway engr.

Louisiana—Until Aug. 22, by State Highway Dept., Maison Blanche Annex, New Orleans, building 22.36 mi. Opelousas-Marksville Highway in St. Landry Parish. D. Buie, ch. engr.

Tenn., Marysville—Until Aug. 19, by Good Rds. Comrs. Blount Co., grading approximately 23 mi. road and paving 34 mi. with macadam, chert and gravel. A. M Walker, secy.

Kentucky—Until Aug. 23, by State Highway Comn., Old Capitol Bldg., Frankfort, bituminous surfacing and covering with stone chips of pea gravel 1 mi. Grayson-Boyd Co. Rd., from Boyd Co. line extending west, State Project 47. Sect. O, State Primary System in Carter Co.; .35 mi. Main St. in Williamsburg, Whitley Co., Federal Aid Project 23, Sect. A, State Project 35, 4.5 mi. Cairville and Grants Lick Rd., beginning at Grant Lick north in Campbell Co., State Project 21, Sect. A, State Primary System of Campbell Co. 11.6 mi. Cynthiana Falmouth Rd., State Project 21, Sect. D and E, on State Primary System, Harrison and Pendleton Counties; shaping draining and surfacing with rock asphalt or bituminous concrete topeka mix or rein.-con., 9.6 mi. Winchester-Mt. Sterling Rd., Sta. O plus 00 to Sta. 506 plus 52.8, State Project 47, Sect. A, State Primary System, Federal Aid Project 63, Clark Co., 4.5 mi. Louisville-Bardstown Rd., Sta. 238 plus 00 to Sta. 474 plus 00, State Project 3, Sect. A, State Primary System, Federal Aid Project 50, Jefferson Co.; shaping, draining, and surfacing with rock asphalt, bituminous macadam, penetration type, or rein.-con. or bituminous concrete, topeka mix, 7 mi. Richmond-Lexington Rd., Sta. 0 plus 00 to Sta. 368 plus 60, State Project 5, Sect. A State Primary System, Federal Aid Project 49, Madison Co. J. S. Boggs state highway engr.

Ohio—Until Aug. 19, by Dept. Highways and Pub. Wks., Columbus, constructing culverts and paving roads in following counties:

Crawford Co., Sect. "K" I.C.H. No. 4, 2.034 mi., brick (state to furnish brick), $77,013, or contractor to furnish brick, $106,226; same paving with monolithic brick (state to furnish brick), $70.608, or contractor to furnish brick, $105,001.

Geauga Co., Sect. "A" I.C.H. No. 475, 2.18 mi., concrete, $59,305.

Jefferson Co., Sect. "H-3" I.C.H. No. 26, 1.044 mi., brick, $61,803.

Lucas Co., Sect. "H-3" I.C.H. No. 20, 2.15 mi., concrete, $77,304.

Mahoning Co., Sect. "D" I.C.H. No. 502, 3.15 mi. plain concrete, $116,908.

Medina Co., Sect. "North" I.C.H. No. 25, 0.32 mi., monolithic brick, $28,244.

Sect. "Seville" I.C.H. No. 25, 0.41 mi., brick, $39,278.

Streets and Roads (Continued)

Sect. "S" I.C.H. No. 25, 3.265 mi., concrete, $128,061.

Sect. "South" I.C.H. No. 25, 0.347 mi., concrete, $13,790.

Vinton Co., Sect. "F" I.C.H. No. 396, 0.31 mi., bituminous macadam (T-1), $6,470.

Wayne Co., Sect. "C" I.C.H. No. 342, 1.12 mi., brick, $62,228, or state to furnish brick $47,506, or concrete, $62,885.

Williams Co., Sect. "G-1" I.C.H. No. 310, 4.09 mi., bituminous macadam, $168,789.

L. C. Herrick, dir. highways.

Mich., Baldwin—Until Aug. 18, by State Highway Dept., at office Bd. Rd. Comrs. Lake Co., grading, draining and surfacing 5.063 mi. State Trunk Line Rd. 63-3, involving 14,607 cu.yd. excav., 47,453 sq.yd. base course gravel, etc. F. F. Rodgers, Lansing, state highway comr.

Mich., Bellaire—Until Aug. 17, by State Highway Dept., at office Bd. Rd. Comrs. Antrim Co., grading, draining and surfacing 1.979 mi. State Trunk Line Rd. 13-27, Sect. B, involving 4,385 cu.yd. excav., 18,580 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Constantine—Until Aug. 19, by State Highway Dept., at office Village Clerk Constantine, grading, draining and surfacing 1.031 mi. State Trunk Line Rd. 13-10, Sect. B, St. Joseph Co., involving 5.035 cu.yd. excav., 11,951 sq.yd. concrete on bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Mich., Crystal Falls—Until Aug. 15, by State Highway Dept., at office Bd. Rd. Comrs. Iron Co., grading, draining and surfacing 1.413 mi. State Trunk Line Rd. 12-34, involving 6,639 cu.yd. excav., 15,631 sq.yd. concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Mich., Eagle River—Until Aug. 22, by State Highway Dept., at office Bd. Rd. Comrs. Keweenaw Co., grading, draining and suracing 4.635 mi. State Trunk Line Rd. 15-8, involving 40,973 sq.yd. waterbound macadam, base course. F. F. Rodgers, Lansing, state highway comr.

Mich., Petoskey—Until Aug. 17, by State Highway Dept., at office Bd. Rd. Comrs. Emmet Co. (Petoskey), grading, draining and surfacing 15.47 mi. Federal Aid Project 60, gravel, in Emmet and Sheboygan Counties. F. F. Rodgers, Lansing, state highway comr.

Mich., Sturgis—Until Aug. 19, by State Highway Dept., at office City Clerk, Sturgis, grading and surfacing 1.622 mi. State Trunk Line Rd. 23-4, Sect. B, St. Joseph Co., involving 85.6 sta. grading, 17,125 sq.yd. concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway comr.

Ill., Lanark—Until Aug. 16, by city, c/o City Clerk, paving various streets, brick on concrete base. About $25,000. C. S. Hopner, Freeport, engr.

Wis., Shawano—Until Aug. 17, by city, paving, Pinic, Franklin and Green Bay Sts., involving 15,610 sq.yd. rein.-con., sheet asphalt or vitr. brick, 9,425 lin.ft. curb and gutter and 5,213 cu.yd. excav. L. P. Pelishek, Clintonville, engr. Noted July 28.

Minn., Fairmont—Until Sept. 1, by Martin Co., gravel surfacing 10 mi. State Rd. 3, between here and north line Martin Co., Federal Aid Projects 72 and 196, involving 12,360 cu.yd. gravel. About $25,000. C. N. Krosch, Fairmont, engr.

S. D., Watertown—Until Aug. 22 (change of date), by city, paving about 11 blocks. About $35,000. W. T. Cochrane, city engr. Noted July 21.

Montana—Until Aug. 15, by State Highway Dept., Helena, grading, etc., 20 mi. Skalkaho Rd., between Anaconda and Hamilton. About $100,000.

Mo., Trenton—Until Aug. 17, by City Council, paving 10 blocks Ridgeway Ave. and Debolt St., bituminous macadam with concrete curbs and gutters. Former bids rejected. C. R. Winks, city engr. Noted May 12.

Ark., Camden—Until Aug. 24, by Bd. Comrs. of Camden Paving Dist. 1 and Camden Curb and Gutter Dist. 1, City Hall, for grading, building storm sewers, concrete gutters and curbs, and paving various streets. E. F. Petersen, Texarkana, engr; advertised in this issue.

Tex., Comanche—Until Aug. 15, by Comanche Co., grading, gravel surfacing and draining 17.43 mi. State Highway No. 18, involving 33.2 acres clearing, 24.2 acres grubbing, 18,331 cu.yd. borrow, 1,362.7 cu.yd. Class A and 161.3 cu.yd. Class B concrete, 103,837 lb. reinforcing steel, 36,354 cu.yd. gravel surfacing, 40,163 cu.yd. earth and 634 cu.yd. solid rock excav. About $180,000. L. D. Parks, City Hall, DeLeon, co. engr.

Tex., Comanche—Until Aug. 15, by F. J. Reese, judge Comanche Co., grading, gravel surfacing and draining 8.03 mi. State Highway 22. About $82,700. L. D. Parks, City Hall, DeLeon, co engr. Noted Aug. 4.

Tex., San Augustine—Until Aug. 18, by W. K. Knight, judge, San Augustine Co., grading, gravel surfacing and draining 20.97 mi. State Highway 21, involving 32,756 cu.yd. gravel surfacing, 260,860 lb. structural and 154,101 lb. reinforcing steel, 134,158 cu.yd. roadway, 14,476 cu.yd. rock and 2,757 cu.yd. structural excav., 1,973.7 cu.yd. 1:2:4 and 87.5 cu.yd. 1:2½:5 concrete, etc. Cost $279,047. Former bids rejected. W. A. French, co. engr. Noted July 14.

Okla., Ada—Until Aug. 18, by City Clerk, paving 9,000 yd. Townsend St. from 12th to 20th Sts., Dist. 6, concrete. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs.

Col., Denver City—Until Aug. 19, by City Council, grading, curbing, asphalt paving and building sewers in 7 blocks Broadway Paving Dist. 5. About $111,000.

Ontario—Until Aug. 25, by W. A. McLean, deputy minister of highways, Parliament Bldgs., Toronto, building ½ mi. macadam base, 20 ft wide, Contr. 464; building concrete culverts in Mononghan and Cavan Twps., Contr. 463, involving about 1,000 cu.yd. concrete, 2,000 cu.yd. excav., (cement and steel supplied by owner). About $35,000. G. Hogarth, Parliament Bldg., Toronto, ch. engr.

Ont., Wingham—Until Aug. 15, by W. A. Golbraith, town clk., concrete paving 10,000 sq.yd. streets. About $35,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Maine—State Highway Dept., Augusta, let contract paving 3.59 mi. state highway in Bangor and Veazie, 18 ft. wide, concrete, to Frissell Eng. Co., Gardner, Mass., $64,483; 3.1 mi. in Turner and Livermore, 18 ft. wide, gravel, to J. H. Kerr, Rumford, $53,876. Noted July 28.

★New Hampshire—State Highway Dept., Concord, let contract paving section state highway in Keene, 18 ft. wide, concrete, to Portland Constr. Co., Portland, Me., $33,855. Noted July 28.

N. Y., Brooklyn—E. Riegelmann, boro. pres. Boro. Hall, opened bids Aug. 3, regulating and paving (1) Benson Ave. from 17th to 18th Aves., (2) East 15th St. from Ave. J to Ave. K, (3) Sutter Ave. from Ilford to Logan Sts., (4) 36th St. from Teehama to Louisa Sts., (5) 39th St. from 13th to 14th Avés., (6) Kingston Ave. from President to Montgomery Sts., permanent asphalt on 6 in. concrete foundation; regulating and resurfacing (7) Kings Highway from Bay Parkway to Coney Island Ave. and from East 16th St. to Ocean Ave., bituminous macadam; regulating and grading, etc., (8) Terrace Pl. from Gravesend to Prospect Aves. and 19th St. from 10th Ave. to Seeley St., (9) West 35th St. from Neptune Ave. to point about 600 feet north of Canal Ave., (10) West 36th St. from Canal Ave. to bulkhead line of Gravesend Bay, (11) 39th St. from 13th to 14th Aves., (12) 77th St. from 20th to 21st Aves., (13) 20th Ave. from 75th to 76th Sts., etc.; recurbing and relaying sidewalks on (14) 84th St. from 23d to 24th Aves.; regulating and regrading (15) 84th St. from 23d to 24th Aves., from

Uvalde Asphalt Paving Co., 1 Bway., New York City, (1) $12,058, (2) $10,352, (4) $9,286, (5) $11,547, (6) $13,881.

Sicilian Asphalt Paving Co., 41 Park Row, New York City, (1) $12,377, (2) $10,538, (3) $3,436, (5) $11,585, (6) $13,683.

Cranford Co., 52 9th St., (1) $12,068, (2) $10,270, (3) $3,611, (4) $9,214, (5) $11,892, (6) $14,790.

Murphy Bros., 8856 26th Ave., (7) $23,878.

C. Gallagher, 745 Dean St., (7) $24,006.

E. Monahan, 1921 Morris Ave., New York City, (7) $27,598.

Borough Asphalt Paving Co., 1301 Metropolitan Ave., (3) $3,504, (4) $9,952.

Casalino Contg. Co., Inc., 217 Havemeyer St., (8) $29,787.

M. I. Sachs, 246 South 9th St., (8) $31,843.

Castle Bros., Johnson Pl., (8) $32,823, (9) $9,024.

Trembers, Inc., (9) $8,689, (10) $7,065.

B. Turecamo Contg. Co., Inc., 8706 Bay 12th St., (9) $8,910, (10) $6,600, (14) $3,111, (15) $1,729.

J. J. Guinan Contg. Co., 2314 Gravesend Ave., (10) $6,946.

Simonelli & Son, Inc., 28 Conselyea St., (11) $4,020, (12) $2,967, (13) $1,622, (14) $3,403.

Harrison & Burnhardt, (11) $4,804, (15) $1,724.

P. Carbone, 95 Bay 25th St., (12) $2,895, (14) $3,226.

L. Mangieri, (12) $2,911.

G. M. Mandato, 139 29th St., (15) $1,492

T. Burke, (13) $1,578, (14) $3,201.

N. Y., New York—H. Bruckner, pres. Bronx Boro., Municipal Bldg., opened bids Aug. 3, paving and improving (1) central drive of Grand Blvd. and Concourse from East 161st St. to Fordham Rd., etc., (2) central drive of Grand Blvd. and Concourse from East 161st St. to Fordham Rd. with an approach thereto just north of Fordham Rd., etc., (3) central drive of Grand Blvd and Concourse from East 161st St. to Fordham Rd. with an approach thereto just north of Fordham Rd. for traffic diversion and Sect. 3 from Burnside Ave. to Fordham Rd. with an approach thereto just north of Fordham Rd., from J. E. Gaffney, 438 East 91st St., (1) $124,933, (2) $149,768, (3) $110,422; C. D. Beckwith, 301 West 108th St., (1) $144,527, (2) $172,681, (3) $124,185; J. Kearns, Jr., (1) $130,497, (2) $153,300, (3) $110,573.

★N. J., Mt. Holly—Burlington Co. let contract paving Mt. Holly Burlington Rd. sheet asphalt, to Union Paving Co., 30th and Locust Sts., Phila., $323,992. Noted July 14.

★N. J., Salem—Salem Co. let contract rein.-con. paving 47,146 sq.yd. Woodstown-Salem Rd., Route 6, Sect. 7, to M. Staub, Sweedsboro, $166,637. Noted July 28.

★N. J., Trenton—Mercer Co. let contract paving Princeton Ave. from Spruce St. to Harneys Corner to Ross & Whalen, Broad St. Bank, $33,085. Noted July 21.

★Pa., Phila.—City let contract building concrete road from state road through grounds of Home for Indigent, to Holmesburg Concrete Co., Holmesburg (Phila. P. O.). About $42,500.

Pennsylvania—State Highway Dept., Harrisburg, received bids Aug. 5, building Route 228, 22,402 ft. one course rein.-con., Penn Twp., Allegheny Co., from McCrady Bros. Co., 308 6th St., Braddock, $202,716; S. Gamble Co., Glass St., Carnegie, $224,782; M. O'Herron Co., 1st and McKean Sts., Pittsburgh, $225,645.

Route 156, 22,395 ft. one course rein.-con., Nockamixon and Durham Twps., Bucks Co., from Pecono Eng. & Contg. Corp., 1170 Bway., New York City, $293,194; Cranford Paving Co., 2620 East St. N. W., Wash., D. C., $308,815; Comerford Constr. Co., 125 South 5th St., Phila., $312,471.

Route 73, 2,557 ft. one course rein.-con., Slippery Rock Boro., Butler Co., from N. J. Boyer, Slippery Rock, $49,671; Brackenridge Sand & Gravel Co., Brackenridge, $52,105; Sampson & Taylor, Slippery Rock, $53,393.

Route 276, 6,275 ft. one course rein.-con., Croyle Twp., South Fork and Summerhill Boros., Cambria Co., from Trevorrow-Crissey Constr. Co., 15 Darby St., Johnstown, $98,452; J. L. Elder, Ebensburg, $102,003; G. I. Thompson Co., Clearfield, $108,894.

Application 1460, 25,773 ft. one course rein.-con., Mohoning Twp., Carbon Co., from G. H. Hardner, Lentz Blvd., Allentown, $188,188; Peconco Eng. & Contg. Corp., 1170 Bway., New York City, $197,718; Souder Constr. Co., 349 Woolworth Bldg., Lancaster, $200,560.

Application 1461, 18,964 ft. one course rein.-con., Lower Towamensing and Towamensing Twps., Carbon Co., from Peconco Eng. & Contg. Co., 1170 Bway., New York City, $175,681; Juniata Co., Empire Bldg., Phila., $183,492; F. T. Ley & Co., Inc., 495 Main St., Springfield, Mass., $202,304.

Route 107, 5,804 ft. one course rein.-con., Phillipsburg Boro., Centre Co., from G. I. Thompson Co., Clearfield, $69,149; Gregory Paving Co., 426 Electric Ave., Lewistown, $77,804; Burnside Constr. Co., Burnside, $78,297.

Route 142, 21,993 ft. one course rein.-con., East Whiteland, Willistown and Tredyffrin Twps., Chester Co., from Peconco Eng. & Contg. Corp., 1170 Bway., New York City, $194,099; J. McKelley Contg. Co., 507 Federal St., Camden, N. J., $197,826; Souder Constr. Co., Inc., 349 Woolworth Bldg., Lancaster, $201,171.

Route 82, 24,787 ft. either bituminous surface course on concrete foundation or one course rein.-con., West Fallowfield Twp., Crawford Co., from S. Gamble, Glass St., Carnegie, $243,103; Dale Eng. Co., Mann Bldg., Utica, N. Y. (Spec. A), $245,133; McCrady Bros. Co., 308 6th St., Braddock, $248,974.

Route 82, 18,161 ft. either btuminous surface course on concrete or one course rein.-con., Sadsbury and Vernon Twps., Crawford Co., from A. W. Hinaman, Freedom, $161,283; Dale Eng. Co., Mann Bldg., Utica, N. Y. (Spec. A), $164,793; J. C. Devine Co., Alliance, O., $169,772.

Streets and Roads (Continued)

Route 139, 4,602 ft. either bituminous surface course on concrete foundation or one course rein.-con., Derry Twp., Dauphin Co., from Comerford Constr. Co., 125 South 5th St., Phila., $53,867; Bennett & Randall, Lebanon, $56,191; Newmeyer Bros., 1416 East 4th St., Bethlehem, $58,481.

Route 97, 3,934 ft. one course rein.-con., Ridgway Twp., Johnsonburg Boro., Elk Co. from J. Be Gaqua, Johnsonburg, $40,640; Johnson & Kearns, Du Bois, $41,754; Burnside Constr. Co., Clearfield, $42,287.

Route 304, 13,278 ft. either bituminous surface course on concrete foundation or one course rein.-con., Smethport Constr. Co., Colegrove, $126,519; Summit Constr. Co., Medford Blk., Akron, O., $18,778; J. C. Devine Co., Alliance, O., $129,314.

Application 1467, 13,625 ft. either bituminous surface course on concrete foundation or one course rein.-con., Harbor Creek Twp., Erie Co., from Dale Eng. Co., Mann Bldg., Utica, N. Y. (Spec. A), $115,050; C. H. Fry Constr. Co., 609 West 19th St., Erie, $115,126; J. Roth (Good Roads Constr. Co.), P. O. Box 524, Erie, $116,972.

Route 64, 1,684 ft. vitr. brick, Brookville Boro., Jefferson Co., from L. H. Hileman Constr. Co., 217 First Natl. Bank, New Kensington, $30,410; Rinehart Bros., Corsica, $35,017; Matson Bros., Brookville, $35,224.

Route 322, Application 925, 5,457 ft. one course rein.-con., from M. Rosato & Son Co., 1145 Sloan Ave., Scranton, $44,185; Neumyer Bros., 1416 East 4th St., Bethlehem, $51,889; McInerney & McNeal, Inc., 702 Northampton Natl. Bank Bldg., Easton, $61,719.

Route 265, 3,500 ft. one course rein.-con., and Hillside vitr. brick, North Beaver Twp., Lawrence Co., from J. B. Reed Co., 550 Bway., McKees Rocks, $60,653; M. J. Scanlon, 16 Cherry St., New Castle, $61,967; J. C. Devine Co., Alliance, O., $63,422.

Routes 11 and 177, 7,210 ft. one course rein.-con., Dallas Boro., Luzerne Co., from Neumyer Bros., 1416 East 4th St., Bethlehem, $77,613; D. W. Davis & Sons, 86 Dorrance St., Kingston, $86,818; Trinidad Asphalt Paving Co., Larksville, $87,305.

Route 240, 17,495 ft. one course rein.-con., Clinton Twp., Lycoming Co., from Juniata Co., Empire Bldg., Phila., $141,008; Comerford Constr. Co., 125 South 5th St., Phila., $145,823; F. G. Fowler Constr. Co., Mt. Kisco, N. Y., $149,991.

Route 82, 1,533 ft. one course rein.-con., Mercer Boro., Mercer Co., from Brackenridge Sand & Gravel Co., Brackenridge, $15,382.

Route 182, 6,045 ft. one course concrete Ralpho Twp., Northumberland Co., from Kumer & Graeber, Shamokin, $66,857; R. C. Fiss & J. Christiano, Shamokin Dam, $66,228; G. W. Rockwell, Sunbury, $69,771.

Route 290, 825 ft. bituminous course on concrete foundation and vitr. brick, Shenandoah Boro., Schuylkill Co., from Gillespie & Franklin, 906 Crozer Bldg., Phila., $40,949.

Route 17, 17,930 ft. one course concrete, Cherry Twp., Dushorem Borro., Sullivan Co,. from Continental Contg. Co., Knickerbocker Bldg., Baltimore, Md., $230,956; Warren Bros. Co., 9 Cambridge St., Boston, Mass., $250,083; Atlanta Constr. Co., Atlanta, N. Y., $251,531.

Route 268, 4,425 ft. one course rein.-con., Allen Twp., Stockdale Boro., Washington Co., from Corrado & Galiardi, Colonial Natl. Bank Bldg., Connellsville, $62,223; McCrady Bros. Co., 308 6th St., Braddock, $71,780; Carey Campbell & Co., 96 Wall St., New York City, $73,008.

Route 268, 9,480 ft. one course rein.-con. and Hillside vitr. brick, East Bethlehem Twp., Washington Co., from Kavanaugh De Niro Constr. Co., 407 Mahoning Bank Bldg., Youngstown, O., $56,598; Burgess & Dorrier, Scottsville, Va., $60,427; Petriello Bros. & Co., Snowden Bldg., Brownsville, $61,151.

Application 965 21,006 ft. one course rein.-con., Derry Twp., Westmoreland Co., from J. B. Reed Co., 550 Bway., McKees Rocks, $182,694; A. W. Hinaman, Freedom, $208,848; McCrady Bros. Co., 308 6th St., Braddock, $214,036.

Route 187, 14,071 ft. one course rein.-con. and Hillside vitr. brick, Franklin Twp., New Salem Boro., Westmoreland Co., from J. C. Devine Co., Alliance, O., $172,791; Warren Bros. Co. ,9 Cambridge St., Boston, Mass., $177,225; Burgess & Dorrirer, Scottsville, Va., $177,648. Noted July 21.

Ohio—Dept. Highways and Pub. Wks., Columbus, opened bids Aug. 5, grading, building bridges and culverts and paving roads in following counties:

Butler Co., Sect. "D" Hamilton-Middletown Rd., 4.15 mi., sheet asphalt on waterbound macadam base, from John W. Hennessey, Piqua., $105,718; Drake, Aller & Sheridan, Worthington, $112,001; Andrews Asphalt Co., Rentschler Bldg., Hamilton, $116,918.

Sect. "A-1" Eaton-Middletown Rd., 1.192 mi., Connell, Laub & Brach, Dayton, brick, $45,622; Brunson & Van Horn, Madera, brick, $47,958; R. H. Shafer, Columbus, brick, $59,878, bituminous macadam, $41,074; Ada Constr. Co., Ada, bituminous macadam, $40,812; C. A. Baker Co., Columbus, bituminous macadam, $42,520.

Sect. "B-1" Eaton-Middletown Rd., 2.527 mi., Connell, Laub & Brach, Dayton, brick, $130,861, bituminous macadam, $114 836; R. C. Pickelheimer, Newtonville, brick, $134,562; R. H. Shafer, Columbus, brick, $156,115, bituminous macadam, $115,285; J. S. Sloan, Norwood, bituminous macadam, $119,379.

Marion Co., Sect. "I-1" Marion-Marysville Rd., 1.49 mi., extra base for waterbound macadam, Cansty-Freedman Co., Youngstown, $8,808; Drake, Aller & Sheridan, Worthington, $8,878; Scioto Constr. Co., Kenton, $8 888.

Stark Co., Sect. "F" & "Wilmot" Naravve-Berlin Rd., 0.93 mi., brick, Glen Hodley, Canton, $44,737; W. E. Burke & Son, Akron, $46,002; Elmer Vogt, Millersburg, $47,212; (same state to furnish brick). Glen Hodley, Canton, $34,727; W. E. Burke & Son, Akron, $36,782; Holmes Constr. Co., Millersburg, $36,817.

Trumbull Co., Sect. "I" Warren-Sharon Rd., 1.51 mi., brick, Barber-Fortin Co., Warren, $73,345; James DeJute, Niles, $79,782; Cavanaugh De Niro Co., Youngstown, $80,958 (same state to furnish brick). Barber-Fortin Co., Warren, $54,700; James DeJute, Niles, $60,634; G. B. Patterson, Wellsville, $63,427. Noted July 28.

★Virginia—State Highway Dept., Richmond, received bids clearing, grubbing, grading, paving and draining (1) 7.03 mi. road between Clifford and Colleen, 12 ft. wide, waterbound and bituminous macadam, Federal Aid Project 96, Amherst and Nelson Counties; (2) 3.29 mi. between Woods Crossing and Ivy, bituminous macadam, Federal Aid Project 115, Albermarle Co.; (3) 6.31 mi. between Sebrell and Courtland, 15 ft. wide, concrete, Federal Aid Project 121, Southampton Co.; 4.79 mi. between Sebrell and Sussex Co. line, 15 ft. wide, concrete, Federal Aid Project 114, Southampton Co.; paving, surfacing and draining (5) 6.71 mi. between Salem and Catawba, 12 ft. wide, 8 in. penetration macadam, Federal Aid Project 110, Roanoke Co.; (6) 12.16 mi. between Charlottesville and Cobham, 16 ft. wide, bituminous macadam, Federal Aid Project 105, Albermarle Co.; (7) 7.38 mi. between Healing Springs and Falling Springs, waterbound and bituminous macadam, Federal Aid Project 101, Alleghany and Bath Counties; (8) 7.65 mi. from Henry Co. line to Sydnorsville, 20 ft. wide, soil, Federal Aid Project 90, Franklin Co.; from Battershill & Goode, Virgilina, (1) $126,067, (8) $42,815; W. T. Jones, 212 10th St., Lynchburg, (1) $148,393; A. W. McClay, 2400 Grove Ave., Richmond, (1) $151,120; C. B. Luck & Sons, Richmond, (2) $96,227, (6) $378,101; Ellis-Brook Co., Staunton, (2) $100,161; Allport Constr. Co., Richmond, (2) $95,454, (3) $164,848, (4) $115,971, (6) $378,027; Perkinson & Finn., Petersburg, (4) $125,795; F. B. Walker, Richmond, (4) $128,513; Vaughan & Draper, Roanoke, (5) $150,881; H. H. George, Meadow and Marshall Sts., Richmond, (6) $357,313; Carpenter-Major Bros. Co., Covington, (7) $169,561; Porter & Peck, Greenville, (8) $41,799; Jamison Bros., Rustburg, (8) $42,172

★North Carolina—State Highway Comn., at Div. Office, Charlotte, let contract grading, reshaping and scarifying 2.28 mi. road, State Aid Project 591, to Redmon Constr. Co., Monroe, $59,420. Noted July 28.

★North Carolina—State Highway Dept., at div. office, Kinston, let contract clearing, grubbing, draining, grading and paving 2.65 mi. State Project 516, Craven Co., to Eagle Eng. Co., Newbern, $105,080. Noted July 28.

★Fla., Bartow—Polk Co. let contract paving 28 mi. road from Lakeland to Lake Co., etc., sheet asphalt on rock base, to McDonald Constr. Co., c/o Stiddam & Hughes, Lakeland, $.65 per yd. for rock, $1.80 for asphalt.

Fla., Mt. Dora—Town received bids paving 4 mi. road, 9-16 ft. wide, 3 in. asphalt surface on sand base, 6 x 12 in. concrete curb, from E. H. Trebes, Tampa, $1.46 per sq.yd., Stiddam & Hughes, Lakeland, $1.55. Noted July 28.

Alabama—State Highway Dept., Montgomery opened bids Aug. 2, grading, draining and surfacing (1) 4.767 mi. road from Lanett to Fairfax, Chambers Co., loose gravel, (2) 10.765 mi. road from Greenville to Lowndes Co. line, Butler Co., sand-clay, (3) 20.62 mi. road from Uriah to Monroeville, Monroe Co., loose gravel, from Gardiner & Crawford, Columbus, Ga., (1) $16,214, (3) $33,585; J. Gwin Hamilton Sta., Birmingham, (1) $17,083, (3) $34,533; Moore & Patterson, La Grange, Ga., (1) $18,456; L. C. Rawlinson, Montgomery, (2) $36,377 (3) $31,039; J. F. Giddens & Son, Troy, (2) $37,253; J. W. Stapp Constr. Co., Rome, Ga., (2) $41,061. Noted July 7.

★Kentucky — State Highway Dept., Old Capitol Bldg., Frankfort, let contract shaping and draining 6.2 mi. Somerset-Stanford Rd., Pulaski and Lincoln Counties, to W. Lutes & Co., Lexington, $105,834; shaping draining and surfacing with rock asphalt, 1.4 mi. road from east to southwest corporate limits of Scottsville, Allen Co., to Speed Parker, Inc., Speed Bldg., Lousiville, $57,560; surface treating roads in Nelson, Rockcastle, Warren, Bourbon and Woodford Counties, to R. B. Tyler 114 South 4th St., Louisville, $29,071; Anderson and Garrard Counties, to Eaton Oil Wks., Covington, $7,482; Madison Co., to Southern Oil & Tar Co., Louisville, $10,252. Noted July 21.

★Ohio—State Highway Comn., Columbus, let contracts building roads in the following counties:

Holmes Co., Sect. "K" Mansfield-Millersburg Rd., 2.178 mi. grading and paving with plain concrete, to Ritter, Zanesville, $49,814.

Ottawa Co., Sect. "B-2" & "Port Clinton" Port Clinton-Bowling Green Rd., 0.875 mi. grading, constructing drainage structures and paving with plain concrete, to E. A. Freshwater, Painesville, $41,880.

Seneca Co., Sect. "O" Findlay-Tiffin Rd., 1.044 mi. grading, constructing drainage structures and paving with bituminous macadam, to W. H. and H. A. Souder, Fostoria, $30,874.

Seneca Co., Sect. "I" Tiffin-Republic Rd., 1.009 mi. grading, constructing drainage structures and paving with bituminous macadam, to R. H. Myers, Attica $29,090.

Tuscarawas Co., Sect. "M" Newcomerstown-Uhrichsville Rd., 3.342 mi. grading, constructing bridges and culverts and paving with bituminous macadam (A-1), to L. W. Russell, West Austintown, $103,638.

Wood Co., Sect. "A" Bowling Green-Port Clinton Rd., 2.57 mi. resurfacing with bituminous mcadam ,to Finch Eng. Co., Bowling Green (T-1), $26,348. Noted July 28.

★O., Akron — Summit Co. let contract grading approach to North Hill viaduct to Kahl Bros., 13004 Woodland St., Cleveland, $30,500. Noted July 14.

O., Cleveland—Comrs. Cuyahoga Co. received bids grading and paving (a) Bway. Rd. 3, (b) Bway. Rd. 2, from Riley Bros., The Arcade, (a) $159,075, (b) $176,708; Bentley Bros., 1836 Euclid Ave., (a) $160,200, (b) $175,604. Noted July 21.

★O., Columbus—City let contract grading, draining, curbing, laying water mains and paving with asphalt 5,536 ft. High St. from Cedar Alley to 5th Ave., 52-63 ft. wide, also 4,270 ft. Front St. from Town St. to Erie Alley, 52 ft. wide, to Franklin Asphalt Paving Co., 209 South High St., $90,708 and $118,216 respectively. Noted July 7.

★O., Garfield Heights (Garfield P. O.)—Village let contract paving East 85th St., asphalt, to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $53,067. Noted Aug. 4.

★O., Montgomery—Montgomery Co. let contract paving 5,000 ft. Germantown St., here, from Lakeview to corporation line, to E. R. Ryan, c/o Comrs. Montgomery Co., Court House, Dayton, $88,346. Noted July 21.

O., South Euclid—See "Waterworks."

★O., West Park—City let contract grading, draining and paving West 118th, 120th, 123rd, 122nd, 127th and Elsienna Sts., asphalt, to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $97,800. Noted July 14.

★Mich., Cadillac—State Highway Dept., at office Bd. Rd. Comrs. Wexford Co., let contract grading, draining and surfacing 1.229 mi. State Trunk Line Rd. 13-8, Sect. A, 0.386 mi. to be surfaced with gravel and 0.843 mi. with concrete, involving 5,559 cu. yd. excav., 9,935 sq.yd. concrete, 3,261 sq. yd. gravel, to H. A. Hoxie, Three Rivers, $30,797. Noted July 28.

★Ill., Waukegan—Lake Co. let contract paving 4.5 mi. Wauconda-Volo Rd., 18 ft. wide, concrete, to F. C. Nelson, Racine, Wis., $137,995. Noted July 28.

★Wisconsin—State Highway Comn., at Div. Office 5, Batavian Natl. Bank Bldg., LaCrosse, let contract surfacing Alma-Mondovi Rd., Federal Aid Project 135, Buffalo Co., to Ofstie & Mulheron, Spring Valley, $24,987. Noted July 21.

★Wisconsin—State Highway Comn., Div. Office 6, 213 South Barstow St., Eau Claire,

Streets and Roads (Continued)

let contract grading and surfacing 7.3 mi. Friendship-Arkdale Rd., State Aid Project 182, Adams Co., to McCarthy & Krause, Wisconsin Rapids, $39,181. Noted June 9.

★Wisconsin—State Highway Comn., at Div. Office 9, Lancaster, let contract concrete surfacing Bloomington-Lancaster Rd., Project 221, Grant Co., to C. E. Rich & Co., Lancaster, $25,010; 1.16 mi. Sandy Hook Rd., Project 209, Grant Co., to LaCrosse Dredging Co., LaCrosse, $32,357; grading and draining Dubuque-Platteville Rd., Project 100, Grant Co., to P. T. Fess, Madison, $9,785. Noted July 21.

Wis., Beaver Dam—City received bids July 29, paving various streets, involving (a) 6,570 cu.yd. excav., (b) 10,010 lin.ft. curb and gutter, (c) 17,150 sq.yd. Warrenite-bitulithic, (d) asphaltic concrete, (e) rein.-con., from Czerwinski Constr. Co., 378½ 16th Ave., Milwaukee, (a) $0.80, (b) $0.85, (e) $2.50, etc., total $60,619; Manitowoc Constr. Co., Manitowoc, (a) $1.10, (b) $0.90, (e) $2.40, etc., total $61,617; P. Fess, Madison, (a) $0.90, (b) $0.94, (e) $2.59, etc., total $63,865; White Constr. Co., Pabst and 30th Aves., Milwaukee, (a) $1, (b) $1, (c) $3.50, etc., total $80,875; Wisconsin Constr. Co., 1000 Humboldt St., Milwaukee, (a) $1.15, (b) $1, (c) $4.35, (d) $3.10, total with Warrenite-bitulithic $97,305, with asphaltic concrete $75,867; Western Improvement Co., Racine, (a) $1, (b) $1.10, (c) $4.40, (d) $3.10, etc., total with Warrenite-bitulithic, $97,925, with asphaltic concrete, $75,631, with sheet asphalt, $81,633; J. Rasmussen & Son, foot 7th St., Oshkosh, (a) $0.95, (b) $1, (d) $2.75, etc., total with asphaltic concrete, $67,499, with sheet asphalt, $72,644. Noted June 30.

Wis., Stevens Point—City received bids Aug. 3, improving various streets involving 18,000-20,000 sq.yd. pavement, (1) rein.-con., (2) vitr. fibre brick, (3) block brick, from W. E. Ule, Stevens Point, (1) $2.65; E. L. Sweeney, Reedsburg, (1) $2.90, (2) $2.90, (3) $4.30; Manitowoc Constr. Co., Manitowoc, (1) $2.58.

★Ia., Audubon—Audubon Co. let contract grading 17.4693 mi. primary road from Exira north thru here to Carroll Co. line, Federal Aid Project 52, to G. W. Condon, 415 Farnam Bldg., Omaha, Neb., 236,175 cu.yd. earth excav. at $0.255 per cu.yd., 239,141 cu.yd., $0.235.

★Ia., Dakota—Humboldt Co. let following contracts grading 2.045 mi. road south from here, and 12.24 mi. east from here, involving 94,312 cu.yd. earth excav.; draining 36.624 mi. north, east, west and south from here, involving 205,943 ft. 6 in., 7,480 ft. 8 in. and 110 ft. 12 in. tile, 43 Type A and 98 Type B intakes; gravel surfacing 5.986 mi. from Gilmore City, east, requiring 8,980 cu.yd. gravel, Federal Aid Project 117, to J. A. Dunkel, Webster City, 19,077 cu.yd. excav., at $0.34 per cu.yd.; L. O. Kimball, Thornton, 75,235 cu.yd. excav., $0.34; J. W. Donnelly, Gilmore City, 8,980 cu.yd. gravel, load, haul one mile, and spread, $0.53, 66,510 units additional ½ mi. haul, $0.12 per unit, 5.986 mi. removing crown, $75 per mi.; Humboldt Gravel & Tile Co., Humboldt, 6 in. tile drain complete at $0.122 per ft., 8 in., $0.177 and $0.183, 12 in., $0.37, Type A intakes $27 each, Type B, $22; Kalo Brick & Tile Co., Ft. Dodge, 50,120 ft. 6 in. tile material at $0.0515; Murray & Larsen, Bradgate, 50,120 ft. 6 in. tile labor at $0.06 per ft., 9 Type A intakes $20 each, 29 Type B intakes, $15 each. Noted July 14.

Ia., Des Moines—Polk Co. received bid paving 1½ mi. road, involving 7,522 cu.yd. excav., 3,200 ft. curb and gutter, 17,600 sq.-yd. concrete and 17,600 sq.yd. brick paving, from Wright Constr. Co., 211 Flynn Bldg., Des Moines, $0.79 per cu.yd. for excav., $1.49 for curb-gutter, $2.88 for concrete and $4.48 for brick paving.

★Ia., Marshalltown—Marshall Co. let contract grading 6.949 mi. Lincoln Highway, Primary Rd. Project 13, east and west from here, to J. Herbert & Sons, Marshalltown, 45,150 cu.yd. excav., at $0.30 per cu.yd., 30,895 cu.yd., $0.345. Noted July 14.

★Kan., Augusta—City let contract paving 3,000 ft. Walnut and 7th Sts., brick, to Smith-Graham Constr. Co., Augusta, $34,300. Noted July 14.

★Mont., Deer Lodge—City let contract paving 16,470 sq.yd. Main St., to Rich & Markus, Missoula, $66,200.

★Mo., St.Louis—City let contract paving Letting 1197, brick and aphalt, to Granite Bituminous Paving Co., Ry. Exch. Bldg., $28,546; reconstructing foundation on Letting 1198, to Indiana Quarry Constr. Co., Ry. Exch. Bldg., $25,028. Noted July 14.

★Tex., Waxahachie—Ellis Co. let contract grading, draining and surfacing 4.23 mi. State Highway 14 north of Ennis, to Scarborough & Smith, Cleburne, $23,444, including 10% for engineering and contingencies. Noted Aug. 4.

★Ariz., Phoenix—City let contract extending pavement 8½ ft. on either side McDowell Rd. from Central to 11th Ave., concrete, to Twohy Bros., 318 Central Ave., $24,684.

★Washington—State Highway Comn., Olympia, let contract draining, and paving with 1 course concrete 2 mi. Pacific Highway from Island School house south, to S. A. Moceri, Thompson Bldg., Seattle, $57,403. Noted July 21.

★Wash., Seattle—City let contract curbing West Massachusetts St., to Scalzo & Co., 1708 22nd Ave., S., $41,587. Noted Aug. 4.

Wash., Seattle—City received bids July 30, paving Elliott Ave., et al, involving 2,950 lin. ft. Type A concrete curb and 6,725 sq.-yd. 8 in. concrete pavement, from Olympic Constr. Co., 1326 Northlake Ave., $22,018, J. L. Smith, Pioneer Bldg., $22,216, D. H. Traphagen, New York Blk., $24,543; 15th Ave., N. W., from Fiorito Bros., New York Blk., $213,593. Noted July 28.

★California—State Highway Dept., 515 Forum Bldg., Sacramento, let contracts to H. J. Kaiser, Oakland, paving 10.34 mi. state highway between Upton and southerly boundary, Div. 2, Route 3, Sect. A, Siskiyou Co. and 15.97 mi. state highway between Cloverdale and Healdsburg, Div. 4, Route 1, Sect. A, Sonoma Co. Noted July 28.

★Cal., El Monte—Bd. Trustees let contract paving Main and 8 other streets, to H. M. Hanawalt, La Verne, $51,522. Noted Aug. 4.

★Cal., South Pasadena—City let contract paving Orange Grove Ave., to R. T. Shea & Co., Riverside, $25,661.

★Que., Montreal—City let contract paving 1½ mi. Normand, St. Julie, Dumarais, Emery and Labor Sts., to Sicily Asphaltum Paving Co., 60 St. Viaetuer St., $31,700; 1 mi. Girouard and Laballe Aves., to Duvanceau & Duvanceau, 152 Hamilton St., $31,329. Noted July 21.

★Ontario—Dept. Pub. Highways, Toronto, let contract paving 2 mi. highway, 20 ft. wide, 8 in. concrete, in Brantford, to Johnson Bros., Brantford. About $95,000.

★Ont., Orilla—Town let contract paving, curbing and guttering about 8,000 yd. West St., Warren bitulithic on 6 in. concrete base, 18 ft. wide, with stone shoulders on each side, to Warren Bituminous Paving Co., McKinnon Bldg., Toronto. About $30,000.

Industrial Works

PROPOSED WORK

Conn., Hartford—Case, Lockwood & Brainerd Co., 141 Pearl St., having plans prepared by Lockwood, Greene & Co., archts. and engrs., 60 Federal St., Boston, Mass., for large printing plant, rein.-con.

Conn., Hartford—C. F. Luce, archt., 36 Pearl St., preparing plans for 6 story, 150 x 150 ft., brick and rein.-con. garage and repair shop on Hicks St. About $500,000. Owner's name withheld.

Pa., Phila.—R. Beard, archt., 2120 North Lambert St., soon receives bids building 2 story, 88 x 170 ft., rein.-con. and steel factory, rein.-con. flooring, rock foundation, at 778-86 4th St., for Boyerite Corp. of America, c/o architect. About $120,000.

Pa., Phila.—Brighton Worsted Co., Tioga and D Sts., soon receives bids building 3 story, 32 x 55 ft. rein.-con. factory, rein.-con. flooring, concrete foundation. About $60,000. Private plans.

Pa., Phila.—H. H. Kline, archt., 1612 South 4th St., soon receives bids building 2 story, 140 x 160 ft., rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, on Ritner and Swanson Sts. About $150,000. Owner's name withheld.

Pa., Phila.—I. W. Levine, archt., Victory Bldg., soon receives bids building 2 story, 48 x 133 ft., rein.-con., steel and brick garage and hall, rein.-con. flooring, rock foundation, on 4th and Seigel Sts., for S. Alexander, c/o archt. About $80,000.

O., Canton—Canton Oxygen Co., recently incorporated with $200,000 capital stock, plans to build 2 story factory on Louisville Rd. About $50,000. W. Stolzenbach, 818 3d Ave., N. E., pres.

O., Cincinnati—Hyde Park Dairy Co., 3755 Edwards Rd., receiving bids building 2 story, 32 x 85 ft., brick and concrete dairy, rein.-con. flooring, concrete foundation. About $40,000. H. W. Voelz, 86 Michigan St., Milwaukee, Wis., archt. Noted June 23.

Ill., Rock Island—See "Buildings."

Mo., Fulton—State Hospital plans to build power house. About $40,000. M. O. Biggs, supt. Engineer not selected.

Ark., Stamps—Louliana & Arkansas Ry having plans prepared by Harrington-Howard & Ash, archts., Orear Leslie Bldg., Kansas City, Mo., for 1 story, brick and rein.-con. locomotive shop. About $150,000.

Tex., San Antonio—State Legislature, Austin, appropriated $100,000 for construction of new power plant at Southwest Texas Insane Asylum, here. Address J. G. Springer, supt.

Cal., Burbank—Amer. Aluminum Products Co., c/o R. D. King, archt., 519 Van Nuys Bldg., having plans prepared for 1 story, brick and timber factory, concrete foundation, to have 60,000 sq. ft. floor space. About $150,000.

Ont., Owen Sound—Deans Garage plans to build garage on Main St. to replace one recently destroyed by fire. About $75,000. Architect not announced.

Ont., Windsor—Calthurst, Trace & Nichols, archts., 16 Sandwich St. W., soon let contract building 2 story, 125 x 400 ft. cold storage plant, rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on McDougall St., for Essex Provision Co. Ltd., 1120 McDougall St. About $600,000.

BIDS DESIRED

Pa., Phila.—Until Aug. 15, by A. M. Barnes, archt., 10 South 18th St., building 1 story, 55 x 185 ft., concrete, brick and steel garage, rein.-con. flooring, concrete foundation, on 34th and Hunting Aves. About $75,000. Owner's name withheld.

Mich., Detroit—Until Aug. 15, by Street Railway Comn., Murphy Bldg., Detroit, building 1 and 2 story carhouse, concrete, brick and steel, concrete foundation, on St. Jean Ave. About $1,000,000. W. C. Markham, 155 West Congress St., Detroit, engr.

Wis., Milwaukee—Until Aug. 18, by School Bd., building 1 story, 30 x 44 ft., brick and concrete boiler house and heating plant, rein.-con. flooring, concrete foundation, at Mound St. School. About $50,000. Van Ryn & DeGellek, Caswell Blk., archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. H., Concord—Boston & Maine R.R., North Sta., Boston, let contract building 1 and 2 story, concrete, steel and brick roundhouse, etc., rein.-con. flooring, concrete foundation, on Hall St., here, to H. Wales Lines Co., 134 State St., Meriden, Conn. About $200,000.

★Mass., Everett—Malden Electric Co., 139 Pleasant St., Malden, let contract building 1 story electric sub-station, brick and concrete, rein.-con. flooring, concrete foundation, on Bway. and Oakland Ave., here, to C. H. Tenney & Co., 201 Devonshire St., Boston. About $75,000.

R. I., Providence—Business—W. T. Grant Co., 30 West 23d St., New York City, receiving bids building 3 story, brick, steel and concrete, rein.-con. flooring, concrete foundation, on Westminster and Mathewson Sts. About $150,000. W. R. Walker & Son, 49 Weybosset St., archts. Noted July 21.

★Conn., Hartford—Prospect Garage, 585 Prospect Ave., let contract building 2 story, 50 x 90 ft. addition to garage, concrete, brick and steel, rein.-con. flooring, concrete foundation, to N. J. Gibbud Co., 730 Chapel St., New Haven.

★N. Y., Brooklyn—The Erie Dyeing & Processing Co., 2765 East 55th St., Cleveland, let contract building 1 story, brick, steel and concrete plant, rein.-con. flooring, brick and concrete foundation, on Nassau Ave. near East 14th St., here, to G. W. Feaga Co., 5927 Euclid Ave., Cleveland. About $150,000. Former contract rescinded. Noted July 7.

★Pa., Beaver Falls—Ingraham & Richardson Mfg. Co. let contract building 1 story, 95 x 129 ft., steel and brick factory, brick foundation, to Cook & Anderson, Beaver Falls. About $60,000.

Pa., Phila.—L. Rubin, c/o Neubaurer & Supowitz, archts., 929 Chestnut St., let contract building 1 story, 97 x 200 ft., rein.-con., brick and steel, garage, rein.-con. flooring, concrete foundation, on 41st and East Poplar Sts., to M. Kirschner, 1930 Brown St.; cost plus percentage basis.

★Fla., Lakeland—Federal Ice Co., Blue Island Ave., Chicago, let contract building 2 story, 100 x 350 ft., rein.-con. ice plant, rein.-con. flooring, to Bloom-Sinck Co., City Hall Square Bldg., Chicago. Cost between $250,000 and $300,000.

Industrial Works (Continued)

★**La., New Orleans**—Crane Co., 836 South Michigan Ave., Chicago, Ill., let contract building 5 story, 159 x 370 ft. distributing plant, mill construction, on block bounded by South Front, Peters, Erato and Gaiennie Sts., to O. M. Gwin Constr. Co., Canal Commercial Bldg., $224,778.

★ **Ill., Lawrenceville** — Lawrenceville Cooperage Co. let contract building 1 story, 40 x 100 ft. factory, to Austin Co., 208 South La Salle St., Chicago. About $50,000.

★**Wis., Oshkosh**—Kaerwer Auto Co. let contract building 1 story, 75 x 98 ft., brick and concrete garage, rein.-con. flooring, concrete foundation, to C. R. Meyer & Sons, 50 State St. About $45,000. Noted July 21.

★**Neb., Pawnee City**—City let contract remodeling electric power plant, to Merkle Mchy. Co., 508 Inter-State Bldg., Kansas City, Mo., $61,600. Noted June 9.

★**Mo., Kansas City**—Grand Ave. Bldg. Co., c/o E. H. Gill, engr., Interstate Bldg., let contract building 2 story, 80 x 122 ft., brick and rein.-con. garage, at 714 Grand Ave., to McClure Constr. Co., Bryant Bldg. About $100,000.

★**Mo., Kansas City**—M. D. Woodling, Reliance Bldg., let contract building 10 story, 100 x 124 ft., brick, rein.-con. and stone garage at 1219 Wyandotte St. to Fogel Constr. Co., Reliance Bldg. About $600,000.

★**Mo., St. Louis**—Excelsior Laundry Co., c/o G. P. Shaum, Grand and Bell Sts., let contract building 2 story, 119 x 127 ft. brick laundry and power house on Grand and Washington Sts. to Fruin-Colnon Constr. Co., Merchants Laclede Bldg. About $200,000. Noted April 28.

★**Cal., Long Beach** — Golden State Woolen Mills, Nadeau Bldg., let contract building 1 story, rein.-con. and steel factory, to contain 110,000 sq.ft. floor space, to Austin Co., 398 Pacific Electric Bldg. About $150,000.

★**Cal., Los Angeles**—Buttress & McLean, 205 North Los Angeles St., let contract building three 1 and 2 story, 60 x 280 ft., brick and steel factories, rein.-con., foundations, on 51st and Santa Fe Sts., to Austin Co., 398 Pacific Electric Bldg. About $38,000 each.

★**Cal., Los Angeles**—City Harbor Dept. let contract building 1 story, 120 x 438 ft. steel warehouse on concrete piling, at Wilmington Los Angeles Harbor, to Austin Co., 398 Pacific Electric Bldg. About $150,000.

★**Cal., Los Angeles**—Union Bank & Trust Co., Garland Bldg., let contract building 1 story, 133 x 139 ft. auto service station, rein.-con. and brick, rein.-con. foundation, on South Main and Adams Sts. to J. M. Cooper, Marsh-Strong Bldg. About $40,000.

Buildings

PROPOSED WORK

Mass., North Adams—School and Hall—St. Josephs Roman Catholic Parish plans to build 2 story (20 rooms), brick and concrete. About $150,000. E. P. Dunphy, pastor. Architect not selected.

Mass., Westfield—School and Hall—Our Lady of Blessed Sacrament Roman Catholic Parish plans to build 2 story, brick, concrerte and steel, on Union St. About $150,000. P. J. O'Malley, pastor. Architect not selected.

Conn., Hartford—Bank—State Savings Bank, 803 Main St., having preliminary plans prepared by B. W. Morris, archt., 101 Park Ave., New York City, for 1 story, brick, marble, concrete and steel, on Pearl St. Noted Mar. 10.

Conn., Stamford — Theatre — Wurster & Gordon, 243 West End Ave., New York City, having plans prepared by E. DeRosa, archt., 110 West 40th St., New York City, for 3 story, brick, concrete and steel, on Rippowan Sq., here. About $450,000.

Pa., Chester—Hospital—St. James Hospital having revised plans prepared by F. F. Durang, archt., 1220 Locust St., Phila., for 4 story, 108 x 112 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 7th and Butler Sts. About $250,000. Noted June 16.

Pa., Phila. — Bank and Office — Mills & Van Kirk, archts., Harrison Bldg., preparing plans and soon receives bids building 3 story, 19 x 101 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Broad and Dickinson Sts., for Sons of Italy State Bank, 7th and Christian Sts. About $160 000.

D. C., Wash. — Apartment — Dist. Natl. Bank, 1406 G St., N. W., having plans prepared by F. R. White, archt., 1410 G St., N. W., for apartment, brick. About $300,000.

D. C., Wash. — Bank and Office — Amer. Commercial & Savings Bank having plans prepared by J. Wenig, archt., 721 10th St., N. W., Wash., for bank and office on 7th and G Sts., N. W. About $150,000.

D. C., Wash.—Bank, Theatre and Office—R. W. Geare ,archt., Woodward Bldg., preparing plans for 10 story, brick and limestone. About $2,500,000. Owner's name withheld.

N. C., Kinston—High School—City election Oct. 4 to vote on $500,000 bonds for high school and other school improvements. M. Happer, mayor.

Fla., Tallahassee—Capitol—State Bd. Institutions having plans prepared by H. J. Klutho, archt., St. James Bldg., Jacksonville, for 3 story, concrete or brick additions. About $250,000. Noted May 12.

O., Akron—Bank and Office—The Warranty Security Discount Co., 65 South High St., having plans prepared by J. H. Graham Co., archts., 8201 Cedar Ave., Cleveland, for 20 story, 60 x 70 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Main and Buchtel Sts. About $1,000,000.

O., Cleveland — Commercial — Conrad-Baisch & Kroeble Co., 7318 Wade Park Ave., having plans prepared for 5 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Euclid Ave. and 82nd St. About $300,000. Architect's name withheld.

O., Cleveland—Office—Ohio State Mortgage Co., c/o Allen-Osborn Co., archts., Rose Bldg., having plans prepared for 12 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on East 9th St. and Huron Rd. About $1,000,000.

O., Cleveland—Store and Apartment—I. Margolin, 10527 Churchill Ave., having plans prepared by M. Weis, archt., 618 Union Bldg., for 3 story, 118 x 130 ft., brick and timber, brick foundation, on Euclid and Rosedale Aves. About $150,000.

O., Dayton—Home—Sisters of Precious Blood, c/o St. Joseph Orphanage, St. Paul Ave., plan to build 3 story, brick and rein.-con., rein.-con. flooring, concrete foundation, on Salem Pike. About $150,000. Architect not selected.

Ill., Bloomington—College—Illinois Wesleyan College, c/o T. Kemp, pres., having plans prepared by A. L. Pillsbury, archt:, Bloomington, for college, to include library, gymnasium, auditorium, dormitory and school building. About $700,000. Noted June 30.

Ill., Bushnell—Hospital—Hospital Assn., c/o Dr. R. R. Barnes, plans to build 2 story, brick and rein.-con., hollow tile floors. About $150,000. Architect not selected.

Ill., Rock Island — Office, etc. — Carlson Bros., 417 15th St., Moline, having plans prepared by Whitsitt & Schulzke, archts., Peoples Bank Bldg., Moline, for 3 story, 40 x 150 ft. office and warehouse, brick and rein.-con., on 5th and 14th Sts. About $150,000.

Wis., Institute (Sturgeon Bay P. O.)—High and Grade School — Consolidated School Dist. receiving competitive sketches for 2 story, brick and concrete, rein.-con. flooring, concrete foundation. About $150,000. R. Wohgram and J. Anshultz, members of building com.

Wis., Lancaster — High School — School Bd. having revised plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, for 2 story, steel and brick, rein.-con. flooring, concrete foundation. Cost between $175,000 and $200,000. E. J. Morse, pres.

Wis., Oconomowoc—High School—Bd. Educ. plans to build 2 story, 125 x 145 ft., brick, concrete and steel, rein.-con. flooring, concrete foundation. About $200,000. Architect not selected.

Wis., Shorewood (Milwaukee P. O.)—High School—School Dist. rejected bids opened July 25, building 2 story addition and central heating plant, rein.-con., brick and steel, rein.-con. flooring, concrete foundation on Atkinson St. About $200,000. Work will be readvertised. R. Messmer & Bros., 201 Grand Ave., Milwaukee, archts. Noted July 14.

Wis., Wauwatosa—Orphanage—Evangelical Lutheran Kinderheim, West Milwaukee Ave., having preliminary plans prepared by R. Messmer & Bros., archts., 221 Grand Ave., Milwaukee, for 3 story, brick and concrete, rein.-con. flooring, concrete foundation, on West Main St. About $150,000.

Wis., West Allis—Church—Holy Assumption Congregation, 577 63d Ave., rejected bids building 60 x 158 ft., brick and stone, on 63d Ave. About $150,000. Work will be readvertised. Clas. Shepherd & Clas. 445 Milwaukee St., Milwaukee, archts. Noted April 21.

Ia., Dubuque—Bank and Office—Union Trust & Savings Bank, c/o N. C. Gindorff, having plans prepared by Bankers Architectural & Eng. Co., 122 South Michigan Ave., Chicago, building 2 story, 75 x 100 ft., brick and rein.-con., on 14th and Clay Sts. About $200,000.

Ia., Dyersville—Bank—Farmers State Bank, c/o J. A. Schneider, cashier, having plans prepared by Bankers Architectural & Eng. Co., 122 South Michigan Ave., Chicago, building 2 story, rein.-con., brick and stone. About $150,000. Noted Dec. 9.

Minn., International Falls—High School—Bd. Educ. plans to build 3 story, rein.-con., brick, tile and stone. About $175,000. F. E. Patterson, clk. Architect not announced.

Kan., Coffeyville—Memorial—City voted $250,000 bonds to build memorial. C. Polleck, clk. Architect not selected.

Kan., Parsons—Lodge—Knights of Pythias, c/o W. A. Disch, plan to build 3 story, brick and stone, rein.-con. or steel frame. About $150,000. Architect no selected.

S. D., Garretson—School—Bd. Educ., c/o T. F. Burns, plans to build 2 story, rein.-con., brick and steel. About $150,000. Perkins & McWayne, Paulton Blk., Sioux Falls, archts.

Wyo., Laramie—School—Bd. Educ. having plans prepared by W. Dubois, archt., Cheyenne, for 2 story, on 9th and Custer Sts. Election soon to vote on $150,000 bonds for project.

Mo., Liberty — High School — Bd. Educ. plans to build 2 story, brick, rein.-con. and stone. About $150,000. E. L. Black, secy. Architect not selected.

Mo., Nevada — Hotel and Sanitarium — Radio Springs Co., c/o C. Hornscher, soon receives bids building 3 story, concrete, at Park. About $200,000. H. Primmer, 129½ North Cherry St., archt.

Mo., St. Joseph — Hospital — Methodist Episcopal Hospital, c/o J. R. Harper, supt., 2602 Monterey St., having plans prepared by Eckel & Aldrich, archts, 1105 Corb Forsee Bldg., for 7 story, 120 x 165 ft., brick, stone and rein.-con., on 8th and Foraon Sts. About $1,000,000.

Mo., St. Louis — Office — Southwestern Bell Telephone Co., Boatman Bank Bldg., having plans prepared by I. R. Timlin, archt., c/o owner, for 3 story, 108 x 140 ft., brick, rein.-con. flooring, on 10th and Chestnut Sts. About $600,000.

Mo., St. Louis—Theatre—Assembly Hall Co., c/o T. P. Barnett, archt., Arcade Bldg., having plans prepared for 2 story, 85 x 135 ft., brick, rein.-con. and stone, at 2619 Market St. About $150,000.

Tex., Arlington—High School—City, c/o A. H. Davis, pres. Chamber Commerce, plans to build 2 story, brick, rein.-con., steel and stone. About $150,000.

Okla., Tulsa—Office—Silver Plume Lodge 182, Knights of Pythias, c/o Tulsa Pythian Bldg. Assn., plans to build 10 story, 70 x 145 ft., rein.-con., on 12th and Main Sts. About $1,000,000. Address H. L. Sanders, 544 Kennedy Bldg., secy. Architect not selected.

Cal., Glendale—Church—Glendale Presbyterian Church having plans prepared by R. H. Orr, archt., 1301 Van Nuys Bldg., Los Angeles, for 1 story, 150 x 150 ft., brick and stone. About $150,000.

Cal., Orange—School—Bd. Educ. having plans prepared by Allison & Allison, archts., Hiberman Bldg., Los Angeles, for 3 story, rein.-con. and brick, rein.-con. foundation. About $160,000.

Cal., Pasadena—Y. W. C. A., 78 North Marengo St., having plans prepared by J. Morgan, archt., Merchants Exch. Bldg., San Francisco, for 3 story, rein.-con., concrete foundation, at 78 North Marengo St. About $150,000.

Ont., Galt—Rink—Galt Amateur Athletic Assn. having plans prepared by F. C. Bodley, archt., Commercial Chambers, Brantford, for 1 story, 130 x 240 ft. ice rink, concrete, brick, stone and steel, concrete foundation, on Shade St. About $150,000.

Ont., London—High School—Bd. Educ. having plans prepared by L. E. Carrothers, archt., c/o owner, for brick and stone, on Tecumseh St. About $200,000. Prices wanted on all materials. W. A. Tanner, secy.

Buildings (Continued)

Ont., Petite Cote—Church and Parsonage—Church of Sacred Heart having plans prepared by J. C. Pennington and J. R. Boyle, archts., Bartlett Bldg., Windsor, for 1 story, 60 x 130 ft., stone and brick, concrete foundation. About $175,000. F. M. Baillargeon, pastor.

Ont., Toronto—Office—H. A. Johnston, 412 Lake Front St., preparing plans for 6 story concrete, steel and brick, concrete foundation, on Bloor St. About $200,000.

BIDS DESIRED

Me., Lewiston—Church—Until Aug. 22, by Miller & Mayo, archts., Fidelity Bldg., Portland, building 1 story, stone, steel and brick, on Main and Bates Sts., for United Baptist Church, Lewiston. About $150,000. Noted Apr. 7.

Mass., Wrentham—School—Until Aug. 16, by Commonwealth Massachusetts, Mental Diseases Comn., 109 State House, Boston, constructing 2 story, 33 x 106 ft. industrial building and 2 story, 52 x 113 ft. assembly hall, brick and concrete, concrete foundations, at State School, here. About $150,000. Kendall, Taylor & Co., 142 Berkeley St., Boston, archts.

★R. I., Providence—Z. Zawatsky & Son, 12 Winslow St., let contract building 1 story, brick, steel and cement garage, rein.-con. flooring, concrete foundation, on Westminster and Knight Sts., here, to C. I. Bigney Constr. Co., 357 Westminster St. About $40,000. Noted July 21.

Conn., Norwich — Store and Business — Schwartz Bros., 72 Main St., receiving bids building 3 story, 60 x 120 ft., concrete, brick and limestone, concrete foundation. About $150,000. Neisner & Uffner, 501 East Tremont Ave., New York City, archts. Noted Aug. 4.

Conn., Westville (New Haven P. O.)—School and Gymnasium—Norton & Townsend, archts., 120 Church St., New Haven, receiving bids building 3 story, 50 x 85 ft. and 40 x 40 ft., steel, stone and brick, concrete foundation, on campus, for Hopkins Grammar School, 1209 Chapel St. About $150,000.

N. Y., Brooklyn—Schools—Until Aug. 16, by C. B. J. Snyder, supt. School Bldgs. of Bd. Educ. and R. W. Rodman, supt. Plant operation, Municipal Bldg., constructing P. S. 183, on Riverdale Ave. between Douglass and Herzl Sts., P. S. 184, on Newport Ave. between Stone Ave. and Watkins St., P. S. 186, on 19th Ave. between 76th and 77th Sts. Noted May 5.

Pa., Phila. — School — Until Aug. 17, by School Bd., building 3 story, 146 x 170 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 7th and Norris Sts. About $270,000. Private plans.

Pa., Phila.—University—Until Aug. 15, by Trustees Temple University, Broad and Berks Sts., building 6 story, 100 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Broad and Montgomery Sts. P. H. Johnson, Presser Bldg., archt.

Pa., Pittsburgh—Store—Until Aug. 16, by B. Jansen, archt. and engr., Century Bldg., constructing 7 story, 120x250 ft., rein.-con., brick and steel, concrete foundation, on Stanwix St. and Duquesne Way, for J. Horne Co., Manufacturers Bldg.

S. C., Charleston — High School — Until Aug. 24, by Secy. Bd. Trustees, City Hall, building high school on Rutledge Ave. Benson & Barbot, 26 Broad St., archts.

Miss., Magee—Sanitorium—Until Aug. 16, by State, c/o T. C. Link, dir. Pub. Wks., P. O. Box 636, Jackson, constructing six 2 and 3 story, brick and stone buildings. About $300,000. Link & Trueblood, Chemical Bldg., St. Louis, Mo., engrs. Noted July 14.

Tenn., Nashville—Office—Until Aug. 29, by G. Norton, archt., Independent Life Bldg., constructing 136 x 172 ft., rein.-con., on 7th and Union Sts., for Natl. Life & Accident Insurance Co., 302 7th Ave. About $700,000. Noted Feb. 10.

O., Alliance—Lodge and Mercantile—Until Aug. 20, by Eagles Lodge, 239 East Main St., building 5 story, brick and stone, rein.-con. flooring, on Main St. About $150,000. Albrecht, Wilhelm & Kelly, 1836 Euclid Ave., Cleveland, archts.

O., Hoytville—School—Until Aug. 27, by Bd. Educ., building 2 story, 80 x 135 ft., in Jackson Twp. About $150,000. G. Dunn, Jr., chn. S. P. Stewart & Sons, Bowling Green, archts.

O., Warrensville—School—Until Aug. 17, by Bd. Educ., building 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Center Rd. About $150,000. G. Nichols, clk. W. H. Nicklas, 1900 Euclid Ave., Cleveland, archt. Noted March 24.

Ill., Centralia — Bank and Office — Until Aug. 16, by T. P. Barnett & Co., archts., Arcade Bldg., St. Louis, Mo., building 5 story, 50 x 90 ft., brick, stone, steel and concrete, for City Natl. Bank. R. L. Ugey, pres. About $200,000. Noted June 23.

Ill., Evanston — Church — Talmadge & Watson, archts., 189 West Madison St., Chicago, receiving bids building 2 story, 50 x 100 ft., stone, on Chicago Ave. and Raymond Park, for First Baptist Church, c/o J. M. Stifler. About $175,000. Noted March 3.

Ill., West Frankfort—City Hall and Jail—City, and J. R. Scribbins, archt., 401 Powers Bldg., Decatur, receiving bids building 2 story, brick and rein.-con. About $150,000.

Ill., Zeigler—School—Until Aug. 16, by Bd. Educ., buliding 2 story, 76 x 109 ft. and 25 x 76 ft., rein.-con., brick and stone. About $150,000. Former contract rescinded. K. M. Vitzthum & Co., 21 East Van Buren St., Chicago, archts. Noted July 21.

Ia., Barnum—School—Until Aug. 22, by Bd. Educ., c/o F. C. Connor, building 2 story, brick and stone. About $150,000. Damon, O'Meara & Hills, Mason Bldg., Ft. Dodge, archts.

Ia., Le Mars—Hospital—Until Aug. 17 (change of date), by W. L. Steele, archt., 502 U. B. Bldg., Sioux City, constructing 4 story, rein.-con., brick, steel and tile, on North Park St., for Sacred Heart Hospital Assn., c/o architect. About $250,000. Noted Aug. 4.

Ia., Webster City — High School — Until Aug. 30, by Bd. Educ., c/o E. P. Prince, secy., building 3 story, 165 x 193 ft., rein.-con., brick, stone and tile. About $250,000. W. Gordon, 317 Hubbell Bldg., Des Moines, archt.

Kan., Great Bend—Church—Until Sept. 15, by First Methodist Episcopal Church, c/o E. E. Wagaman, building 1 story, 80 x 120 ft., brick, stone and steel. About $150,000. Owen, Payson & Carswell, Interstate Bldg., Kansas City, Mo., archts. Noted Jan. 13.

Mo., Kansas City—Apartment—Until Aug. 15, by C. O. Jones, Commerce Bldg., constructing 4 story, 46 x 132 ft., brick, stone and steel, on 42d and Locust Sts. About $150,000. N. E. Peters, c/o owner, archt. Noted July 14.

Mo., Kansas City—Hotel—Until Aug. 26, by Brostrom & Drotts, archts., Reliance Bldg., constructing 11 story, 26 x 96 ft., brick, rein.-con. and stone, at 15 East 24th St., for W. E. Eysell, 15 West 10th St. About $150,000.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★R. I., Providence—School and Hall—St. Paul's Roman Catholic Church, Broad St., let contract building 2 story, 97 x 109 ft., brick and steel, rein.-con. flooring, concrete foundation, to R. J. McIntyre & Son, Providence. About $150,000. Noted June 30.

★Conn., Danbury — Hospital — Danbury Hospital, Locust Ave., let contract constructing 4 story, 35 x 117 ft. nurses' home, brick, concrete and steel, and 4 story, 40 x 125 ft. service building, brick and steel, rein.-con. flooring, concrete foundations, to W. E. Egelhof, 101 Park Ave., New York City. About $300,000. Noted July 7.

★Conn., Hartford—School—First School Dist. let contract building 3 story, 108 x 139 ft., rein.-con., steel and brick addition, rein.-con. flooring, concrete foundation, on Talcott St., to Southern New England Contg. Co., 173 State St. About $570,000. Noted June 23.

★Conn., Manchester — Club — Campbell Council, K. of C., let contract building 3 story, 60 x 100 ft., brick and steel, concrete foundation, on Main and Bissell Sts., to T. Gorman, 75 Linden St., South Manchester. Noted June 30.

N. Y., Long Island City—High School—C. B. J. Snyder, Supt. School Bldgs., Municipal Bldg., New York City, opened bids Aug. 5, completing and finishing the general construction of additions to and alterations in Bryant High School, on Wilbur Ave. between Academy and Radde Sts., from J. Schlesinger, Inc., 259 West 90th St., New York City, $160,400; M. C. Tredennick, 331 Madison Ave., New York City, $165,000; Vought Constr. Co., Inc., Grand Central Terminal, New York City, $183,853. Noted July 28.

★Pa., Johnstown—Store—M. Maghan & Bros. let contract building 5 story, 100 x 120 ft., steel and brick, rein.-con. flooring, at 435 Lincoln St., to Q. Hafer, Chambersburg, cost between $150,000 and $200,000; percentage basis.

★Pa., Phila.—Hospital—Childrens Hospital, 18th and Fitzwater Sts., let contract building 4 story, to G. A. Fuller Co., 321 Walnut St. About $157,000.

★Pa., Phila.—Office and Bank—Walnut St. Savings & Trust Co., c/o H. C. Hogens, archt., 130 South 15th St., let contract building 7 story, 94 x 118 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Juniper and Walnut Sts., to Penn Realty Constr. Co., c/o architect. About $500,000; cost plus percentage basis.

★O., Dayton—School—Bd. Educ. let general contract building 2 story, brick, steel and concrete, rein.-con. flooring, concrete foundation, on Jackson St., to Drummond & Miller, 4500 Euclid Ave., Cleveland, $347,150; heating and power work to W. Haas, 429 East 3rd St., $56,179. Noted July 21.

★O., East Liverpool — Church and Parsonage—First Methodist Episcopal Church let general contract building 120 x 130 ft., on 5th and Jackson Sts., to Martin, Orr & Martin Co., East Liverpool. About $165,000. Noted July 7.

★O., Fairview—School—Bd. Educ. let contract building 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, to D. Gilchrist, Berea. About $150,000. Noted July 14.

O., Wadsworth — School — Bd. Educ. received bids June 28 building 2 story, brick, steel and concrete, rein.-con. flooring, concrete foundation, from Carnichael Constr. Co., 524 Hamilton Bldg., Akron, $159,000; T. E. McShaffrey, Forge St., Akron, $165,000. Noted June 23.

★Ill., Alton—Hospital—Alton State Hospital let contract constructing brick and concrete, including 6 buildings, to Modern System Constr. Co., Commercial Bldg., Alton, $195,673. Noted March 24.

★Ill., Danville—Y. W. C. A., c/o E. B. Cooley, let contract building 3 story, 140 x 140 ft., brick and stone, to Sheets & Ingersoll, Daniels Bldg., $130,600. Noted June 23.

★Ill., Hinsdale — Club — Hinsdale Golf Club, c/o W. Fetzer, chn., 143 South La Salle St., Chicago, let contract building 3 story, 100 x 150 ft., rein.-con., brick and stone, to W. Saltwich, Hinsdale. About $150,000. Noted April 28.

★Ill., Niles—Infirmary—E. Bielmeier, archt., University Bldg., Milwaukee, Wis., let contract to J. F. Schrambeck, 3414 Hamlin Ave., Chicago, building 2 story, 50 x 125 ft., rein.-con. and brick, for St. Hedwigs Industrial School for Girls, here. About $150,000. Noted July 7.

★Wis., Milwaukee — Bank — Wisconsin State Bank, 508 11th Ave., let contract building 2 story, 52 x 85 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, to R. Reisinger & Co., 464 Oakland Ave. About $150,000. Noted June 23.

★Wis., Sheboygan—Bank and Office—Security Natl. Bank let contract building 7 story, 80 x 108 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to P. Riesens Sons, 1018 Humboldt Ave., Milwaukee. About $600,000. Noted July 7.

★Ia., Des Moines—Bank and Office—Iowa Natl. Bank, c/o H. Miller, pres., Fleming Bldg., let contract remodeling 7 story stone and brick on 6th and Walnut Sts., to A. H. Neumann & Co., 519 Hubbell Bldg., Des Moines. About $150,000. Noted July 14.

★Ia., Oakdale—Hospital—State Bd. Control, c/o V. Scarborough, Oakdale, let contract building 2 story, 83 x 112 ft., rein.-con., brick, stone and steel, to J. W. Hopp Constr. Co., 403 Granby Bldg., Cedar Rapids. About $175,000.

★Kan., Buffalo Park—Church—Roman Catholic Church, c/o W. Wenzel, pastor, let contract building 2 story, 70 x 100 ft., brick, stone and steel, to M. J. Green, Manhattan. About $150,000.

★Mo., Kirkwood—High School—Bd. Educ. let contract building 2 and 3 story, brick and steel, rein.-con. flooring, to W. Bopp Constr. Co., Kirkwood. About $165,000. Noted July 21.

★Cal., Los Angeles—Loft—Klein-Norton Co., 253 South Los Angeles St., let contract building 12 story, 69 x 200 ft., rein.-con.

Buildings (Continued)

stone and tile, on 7th and Wall Sts., to U. S. Constr. Co., I. W. Hellman Bldg. About $500,000.

★Que., Montreal — Merchants Bank, 205 St. James St., let contract building 1 story, 50 x 70 ft., rein.-con. and steel, rein.-con. foundation, on St. Catherine St., to Purdy & Henderson, 10 Cathcart St. About $150,000.

★Ont., Orilla—Hospital—Hospital Bd. let contract building 2 story, 65 x 140 ft., concrete, steel and brick, concrete foundation, to E. Webb & Son, Orilla. About $170,000, cost plus percentage basis.

★Ont., Ottawa—Hospital—City let general contract building 5 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Carling and Parkdale Aves., to A. Garvock, Regent Theatre Bldg. About $2,500,000.

Man., Winnipeg—Collegiate—Pub. School Bd. received bids July 26, building 3 story, 265 x 318 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Alverstone and Wellington Sts., from J. McBlarmid Co. Ltd., Myrtle and Winnipeg Aves., about $990,000, Sutherland Constr. Co., 301-2 Merchants Bank, $1,016,860, Carter, Halls & Aldinger Co. Ltd., Union Bank Bldg., $1,027,229; heating and power, from Cotter Bros. Ltd., Fort and St. Marys Sts., $128,658, Bowyer Boag Ltd., 45 Olivia St., $130,880, Green & Litster Ltd., 237 Front St., $131,000. Noted July 7.

Federal Government Work

PROPOSED WORK

Md., Perryville—Hospital—Treas. Dept., Wash., D. C., plans to construct, here. J. A. Wetmore, acting superv. archt.

Wyo., Ft. McKenzie — Hospital — Treas. Dept., Wash., D. C., plans to construct at Camp Sheridan, here. J. A. Wetmore, acting superv. archt.

Wash., Walla Walla — Hospital — Treas. Dept., Wash., D. C., plans to construct, here. J. A. Wetmore, acting superv. archt.

BIDS DESIRED

Mass., Boston—Mechanical Equipment—Spec. 4495—Until Aug. 24, by Bureau Yards & Docks, Navy Dept., Wash., D. C., installing mechanical equipment and piping and altering in boiler plant, here. Noted July 28.

Mass., South Boston (Boston P. O.)—Crane—Spec. 4478—Until Sept. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., furnishing one 50-ton steam crane for drydock, here.

Pa., Phila.—Dredging—Until Sept. 7 by U. S. Engineer, 815 Witherspoon Bldg., dredging and rock removal in Schuylkill River, here; advertised in this issue.

Pa., Phila.—Mezzanine Floors, etc.—Until Aug. 19, by Treas. Dept, Wash., D. C., constructing in U. S. Post Office, here. J. A. Wetmore, acting superv. archt.; advertised in this issue.

Pa., Pittsburgh—Barges—Until Sept. 2, by U. S. Engineer, furnishing and delivering 3 steel deck barges; advertised in this issue.

Md., Annapolis—Ash Bunker, Power House Extension, etc.—Spec. 4487—Until Aug. 31, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing ash bunker, at Naval Academy, power house extension, and coal bunker, at Naval Hospital Reservation, here. C. W. Parks, clk bureau; advertised in this issue.

Va., Norfolk—Gun Shed—Spec. 4475—Until Aug. 31, by Bureau Yards & Docks, Navy Dept., Wash., D. C., building, 1 story, at Marine Barracks Reservation, Navy Yard, here. C. W. Parks, ch. of bureau; advertised in this issue.

Va., Norfolk—Removal of Wreck—Until Sept. 5, by U. S. Engineer, removing wreck of Steamer Lake Cavenia, Chesapeake Bay, 2 mi. east Ft. Monroe; advertised in this issue.

S. C., Charleston—Sprinkler System—Spec. 4490—Until Aug. 31, by Bureau Yards & Docks, Navy Dept., Wash., D. C., for complete wet-pipe systems of automatic sprinklers, in Bldgs. Nos. 5, 7, 10, 13 and 1023, Navy Yard, here. C. W. Parks, ch. bureau; advertised in this issue.

Tenn., Memphis—Heating System—Until Aug. 18, by Dist. Engr., Mississippi River Dredging Dist., P. O. Box 1017, furnishing and installing low pressure heating system, in warehouse building, U. S. Dredge Depot; advertised in this issue.

Tenn., Memphis—Steel Barges—Until Sept. 5, by Mississippi River Comn., 1st and 2nd Dists., Customhouse, furnishing steel barges; advertised in this issue.

Ore., Eugene—Alterations to Post Office—Until Aug. 29, by Treas. Dept., Wash., D. C., altering, here. J. A. Wetmore, acting superv. archt.

Wash., Puget Sound—Crane—Spec. 4478—Until Sept. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., furnishing one 50-ton steam crane for drydock, here.

Wash., Seattle—Emergency Dams—Until Sept. 22, by U. S. Engineer, constructing for Lake Washington Ship Canal Locks, here; advertised in this issue.

Cal., Los Angeles—Dredging—Until Aug. 22, by U. S. Engineer, 725 Central Bldg., dredging Los Angeles harbor on east side entrance of channel, here, involving 1,254,000 cu.yd. excav.

Cal., Mare Island — Riprapping Dike — Spec. 4390—Until Sept. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., for riprapping Dike No. 12, Navy Yard, here, involving 100,000 cu.yd. rock. Noted Mar. 17.

Cal., San Diego—Dredging and Filling, etc.—Spec. 4485—Until Sept. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., dredging, filling and repairing base, here. Noted June 30.

Cal., San Diego—Quay Wall Extension—Spec. 4484—Until Sept. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., extending at Naval base, here. Noted June 30.

H. T., Pearl Harbor—Machine Shop—Spec. 4464—Until Sept. 21, by Bureau Yards & Docks, Navy Dept., Wash., D. C., erecting steel work of machine shop, 1 story, 181 x 520 ft., at Naval Station, here.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Iona Island—Power Plant Improvements—Spec. 4215—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing at Ammunition Depot, here, to Lord Constr. Co., 105 West 40th St., New York City, $20,939 (150 days). Noted Aug. 4.

★S. C., Charleston—Air Compression—Spec. 4431—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract, reciprocating air compression, Navy Yard, here, to Nordberg Mfg. Co., Oklahoma and Chicago Rd., Milwaukee, Wis., $34,100 (175 days). Noted July 28.

★Cal., San Diego—Barrack Alterations—Spec. 4429—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract altering Barracks C-1, Naval Base, here, to Miller & Eddleman, 401 Central Mortgage Bldg., San Diego, $3089 (90 days). Noted April 28.

Miscellaneous

PROPOSED WORK

Bituminous Dressing—Trenton, N. J.—Bd. Freeholders Mercer Co. soon receives bids furnishing 50,000 gal. bituminous dressing for Robbinsville-Allentown Rd. About $10,000. H. F. Harris, Court House, engr.

Piers—Phila., Pa.—Dept. Wharves, Docks & Ferries plans to remove old wooden piers north of Market St. on Delaware River and replace same with 3 large modern double-deck structures, one pier 70 ft. wide and 2 piers 160 ft. wide, all docks and waterways 170 ft. wide and 550 ft. long, providing first deck area of 226,000 sq.ft. and second deck area 186,960 sq.ft. About $4,000,000. G. Sproul, Bourse Bldg., dir. and engr.

Grain Elevator—Baltimore, Md.—Western, Maryland R.R. Terminal Co., Charles and Saratoga Sts., opens bids about Aug. 15, building rein.-con. addition to grain elevator, 1,000,000 bushel capacity, also building 247 ft. dock including wood piles, at Port Covington. J. Stewart & Co., 1210 Fisher Bldg., Chicag, Ill., engrs.

Swimming Pool — Indianapolis, Ind. — City having plans prepared for 128 x 192 ft. rein.-con. swimming pool, 610,000 gal. capacity. About $60,000. W. Bintz, 1713 South Genesee Dr., Lansing, Mich., engr.

Grain Elevator—Manito, Ill.—Grander Elevator Co., c/o L. A. Warmer, Manito, plans to build rein.-con. grain elevator, concrete flooring. About $75,000. Architect not selected.

Breakwater—Milwaukee, Wis.—Park Bd. having revised plans prepared constructing 260 lin.ft. rubble mound breakwater on Lake Shore Dr., Sect. 3. Former bids returned unopened. Noted July 14.

Seed Elevator—Chatham, Ont.—Rennie Seed Co., Richmond St., plans to rebuild seed elevator recently destroyed by fire. Loss $100,000.

BIDS DESIRED

Garbage Disposal—Providence, R. I.—Until Sept. 12, at office of W. C. Pelkey, city clk., City Hall, for garbage disposal; advertised in this issue.

Dock Wall, etc. — Buffalo, N. Y. — Until Aug. 22, by Pub. Wks. Comn., Municipal Bldg., constructing concrete dock wall in Buffalo Harbor from Jersey to Maryland Sts., also improving channel and constructing dock wall in Buffalo River, west of Ohio St. bridge. G. H. Norton, Municipal Bldg., engr. Noted Feb. 10.

Dredge, etc.—Belzoni, Miss.—Until Sept. 7, by Comrs. Belzoni D. D., furnishing floating dipper dredge or one self-propelling drag line (new or used). C. E. Miller, engr.; advertised in this issue.

Culvert—Jefferson, La.—Until Aug. 17, by Bd. Comrs., of Levee Bd., Room 201, New Orleans Court Bldg., furnishing equipment, material and labor for construction of rein.-con. culvert at "Hoey's Cut," involving 190 cu.yd. rein-con., 2,600 cu.yd. earth backfill, etc. J. C. Donner, secy.

Steam Generating Equipment—Hammond, Ind.—Until Aug. 26, by Bd. Pub. Wks., constructing and erecting steam generating equipment. J. Ericson, 30 North La Salle St., Chicago, Ill., consult. engr.; advertised in this issue.

Transmission Line—Haddam, Kan.—Until Aug. 16, by city, c/o E. L. Bowman, clk., building transmission lines and distributing systems from here to Cuba. About $25,000. W. B. Rollins, Ry. Exch. Bldg., Kansas City, Mo., engrs.

Portland Cement, etc.—St. Paul, Minn.—Until Aug. 15, by H. W. Austin, city purch. agt., furnishing 3,200 bbl. Portland cement, 2,000 cu.yd. gravel and 1,000 cu.yd. silica sand for water dept. About $12,900. O. Claussen, City Hall, engr.

Culverts, etc.—Ontario—Until Aug. 17, by W. A. McLean, deputy minister of highways, Parliament Bldg., Toronto, building concrete structures in Howard and Harwich Twps., Contr. 455; Sect. A McNab Twp., Contr. 460; Sect. B McNab Twp., Contr. 461; Sect. D Nepean Twp., Contr. 462; each contract comprises 1,000 cu. yd. concrete and 2,000 cu. yd. excav. About $90,000. G. Hogarth. Parliament Bldg., Toronto, ch. engr.

Railway Ties—Toronto, Ont.—Until Sept. 17, by W. H. Grant, engr., c/o Canadian Natl. Ry., 1 Toronto St., furnishing 1,000,000 railway ties. About $1,250,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Portland Cement, etc.—New York, N. Y.—H. Bruckner, pres. Bronx Boro., Municipal Bldg., opened bids Aug. 3, furnishing and delivering 5,000 bags portland cement, from G. B. Raymond & Co, 293 Borden Ave., Long Island City, $3,875; J. A. McCarthy, 551 Exterior St., $4,125; J. P. Duffy & Co., 207 East 138th St., $4,150; 20,000 gal. bituminous road surfacing material (for use hot), from Barrett Co., 17 Battery Pl., $3,580; Tar Products Co., 1270 Bway., $3,660; F. J. Lewis Mfg. Co., $3,700.

Asphalt Joint Filler—Brooklyn, N. Y.—E. Riegelmann, boro. pres., Boro. Hall, opened bids Aug. 3, furnishing and delivering 150 ton asphalt joint filler for granite block pavements, from Standard Oil Co., 26 Bway., New York City, $24.97 per ton, total cost, $3,725; Texas Co., 17 Battery Pl., New York City, $29.26, $4,389. Noted July 28, under "Streets and Roads."

★Pier—Phila., Pa.—G. F. Sproule, dir. Dept. Wharves, Docks & Ferries, 550 Bourse Bldg., let contract constructing substructure of Girard Pier, No. 3, North Delaware River, to Snare & Triest, 1524 Chestnut St., $853,800. Noted Aug. 4.

★Marine Terminals—Wilmington, Del.—Bd. Harbor Comrs., 351 Municipal Bldg., let contrct building unit No. 1 of marine terminals, to Dupont Eng. Co., Dupont Bldg., $1,372,570. Noted July 14.

★Grain Elevator—South Deering (Chicago P. O.), **Ill.**—Chicago & Northwestern Ry., c/o W. H. Finley, pres., 226 West Jackson St., Chicago, let contract building 300 x 500 ft., rein.-con., brick and steel, here, to Witherspoon-Englar Co., 53 West Jackson St., Chicago. About $4,500,000.

★Sluice Gates—Los Angeles, Cal.—Bd. Supervs. Los Angeles Co. let contract furnishing sluice gates for Devils Gate Dam, to Llewellyn Iron Wks., Main and Redondo Sts., $24,567. Noted Aug. 4.

OFFICIAL PROPOSALS

Bids Aug. 23.

Construction of Viaduct

Trenton, N. J.

On Tuesday, the 23rd day of August, 1921, at 2:30 o'clock in the afternoon, daylight saving time, at its regular place of meeting, in the Court House, Trenton, New Jersey, the Board of Chosen Freeholders of the County of Mercer will receive proposals:

For performing all work and labor and furnishing all the materials, tools and equipment necessary or indicent to the construction and completion of a through plate girder viaduct containing a vertical lift span of the wire-rope type, over the Delaware and Raritan Canal and the Pennsylvania Railroad at Southard Street in Trenton, Mercer County, New Jersey, to be known as the "Southard Street Viaduct," in accordance wih plans and specifications prepared by Waddell & Son, Inc., and on file in their office, 35 Nassau Street, New York City, or in the office of the Mercer County Engineer at the Court House, Trenton, New Jersey, to which bidders are particularly referred for detailed information and for necessary proposal forms. Copies of plans and specifications may be obtained at either of the above named offices upon deposit of Ten Dollars ($10.00).

The total length of the viaduct is 375 ft., including the lift span of 73½ feet.

The approximate quantities of the principal items are as follows:

500 tons of structural steel.
40 tons of reinforcing rods.
1,400 cu. yd. of excavation.
1,700 cu. yd. of all classes of concrete.
74,000 lb. of machinery, cables, sheaves, etc.

Bidders' attention is called particularly to the fact that the specifications provide for a bonus of Twenty Dollars ($20.00) for each and every day that the work is completed in advance of the specified time of completion, and a penalty of the same amount per day for delay in completing the work. The entire work is to be completed within ten (10) months after the execution of the contract.

Each bid must be accompanied by the written proposal of a surety company fulfilling the requirements of section 507, chapter 185, laws of 1918, and the form of bond required will be substantially as described in chapter 75 of the laws of 1918. The amount of the bond required will be the full amount of the contract price. Each proposal must also be accompanied by cash or a certified check, in the amount of Ten Thousand Dollars ($10,000.00) payable to the order of Edgar G. Weart, County Treasurer, and deposited upon condition that as against the succesful bidder the same will be retained by the county as liquidated damages should he fail to execute a valid contract and furnish an acceptable surety company bond within seven days from the awarding of the contract.

The right is reserved to reject any or all bids and to waive any immaterial defect or informality in any bid should it be deemed to the interest of the county to do so.

CHARLES H. REICHERT,
Director of Dept. of Bridges.

Bids: Sept. 12.

Collection and Disposal of Garbage

Providence, R. I.

Sealed proposals will be received at the City Clerk's Office, City Hall, Providence, R. I., until 2:15 o'clock p.m., Monday, September 12, 1921, for the collection and disposal of Garbage in the City of Providence, by any of the following methods: feeding to swine—reduction process—or incineration. This Board will report all bids to the City Council with such recommendations as it may see fit to submit, and the contract will be made pursuant to action of the City Council.

Terms and requirements for bidding and specifications may be obtained at the office of the City Clerk, City Hall, Providence, R. I.

By order of the Board of Contract and Supply.

JOSEPH H. GAINER,
Mayor and Chairman
WM. C. PELKY, City Clerk.

Bids: Aug. 18.

Dairy Industry Building

CORNELL UNIVERSITY

Ithaca, N. Y.

NOTICE TO CONTRACTORS: Sealed proposals for the complete work of construction, including heating, sanitary and electric work, also separate bids for construction, heating, sanitary and electric work for the Dairy Industry Building, Cornell University, Ithaca, N. Y., will be received by Charles D. Bostwick, Comptroller, Cornell University, at his office, Cornell University, Ithaca, N. Y., until 12 o'clock noon (Standard Time), on Thursday, August 18, 1921, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check as follows:

Contractors bidding on the complete work (proposal No. 1), and also bidding on one or more branches of the work (under proposals Nos. 2, 3, 4 or 5), shall submit with their proposals a deposit in an amount equal to 5 per cent of the complete work (proposal No. 1); separate deposits will not be required for the various branches of the work when bid is submitted for the complete work.

Contractors not bidding on the complete work (proposal No. 1) and bidding on one or more branches of the work shall submit with their proposals a deposit in an amount equal to 5 per cent of the total sum of each proposal.

The contractors to whom the awards are made will be required to furnish surety company bond in the sum of 50 per cent of the amount of contract within thirty days after official notice of award of contract and in accordance with the terms of Specifications Nos. 3758, 3759, 3760 and 3761. The right is reserved to reject any or all bids. Drawings, specifications and blank forms of proposal may be consulted at the Dairy Building, Cornell University, Ithaca, N. Y.; at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. PILCHER, Capitol, Albany, N. Y.

Dated: July 19, 1921.

Bids: Aug. 26.

Refuse Incinerators

Philadelphia, Pa.

Sealed proposals will be received and opened in Room 216, City Hall; at 12 o'clock noon, Friday, August 26, 1921 for: Refuse incinerators consisting of two or more units with a capacity of 140 tons per 24 hours of mixed refuse and a capacity of 240 tons of rubbish per 24 hours, at each of two or three stations in the City of Philadelphia.

The City will construct the foundation, buildings and chimneys.

Bidders must be responsible and have had experience in the construction of plants of this character and size.

Specifications, proposals and further information may be obtained from the above Bureau and from Samuel A. Greeley, Consulting Engineer, 39 West Adams Street, Chicago, Ill.

July 25, 1921.
FRED C. DUNLAP,
Chief of Bureau.
Inquire at Room 232, City Hall.

FRANK H. CAVEN,
Director.

DEPARTMENT OF PUBLIC WORKS
BUREAU OF HIGHWAYS
Room 232, City Hall.

Bids: Aug. 16.

Cleaning Water Mains

Detroit, Mich.

Bids for cleaning about twenty miles of water mains will be received until noon, August sixteenth, by the Board of Water Commissioners, City of Detroit.

Bids: Aug. 15.

Paving

Somerville, N. J.

Notice is hereby given that sealed bids will be received by the Borough of Somerville for the paving of South Street, Union Street, Doughty Ave. and Somerset Street with one of the following:

A one course Reinforced Cement Concrete Pavement, or a Sheet Asphalt Pavement on a Plain Cement Concrete Base Course, or a Warrenite-Bitulithic Pavement on a Plain Cement Concrete Base Course, or a National Pavement on a Plain Cement Concrete Base Course. Estimated amount of pavement 17,032 square yards and opened and read in public at The Borough offices at Somerville, N. J., on the 15th day of August, 1921, at 7:00 p.m., Standard Time.

Drawings, specifications and forms of bid, contract and bond for the proposed work, prepared by W. J. Hardin, Engineer, are on file in the office of said Engineer at Newton, N. J. and at the office of the Borough Clerk of Somerville, N. J. and may be inspected by prospective bidders during business hours. Bidders will be furnished with a copy of the specifications and blue prints of the drawings by the Engineer or Borough Clerk on proper notice and payment of the cost of preparation. Bids must be made on the Standard Proposal Forms in the manner designated therein and required by the specifications, must be enclosed in sealed envelopes bearing the name and address of bidder and name of streets on the outside, addressed to The Borough of Somerville, N. J. and must be accompanied by a certificate of the Bondsmen and a certified check for not less than 10% of amount bid and be delivered at the place and on or before the hour above named. The Standard Proposal Form will be furnished on application to the Engineer, or Borough Clerk.

The Board reserves the right to reject any and all bids.

By Order of the Borough of Somerville.
J. B. VARLEY, Clerk.

Bids: Aug. 16.

Improvement of Highways

OFFICE OF THE STATE COMMISSION OF HIGHWAYS

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 1 o'clock p.m. advanced standard time, which is 12 o'clock noon eastern standard time, on Tuesday, the 16th day of August, 1921, for the improvement of highways in the following counties:

Allegany (two highways)	(4.87:4.88)
Cayuga	(Approx. 6.76)
Chautauqua	(Approx. 1.32)
Erie	(Approx. 3.69)
Oswego	(Approx. 2.36)
Otsego	(Approx. 10.58)
Schoharie	(Approx. 4.39)
Suffolk	(Approx. 7.13)

Also for the reconstruction of highways in the following counties:

Allegany	(one contract)
Chemung	(one contract)
Columbia	(one contract)
Monroe	(one contract)
Schenectady	(one contract)
Steuben	(one contract)
Westchester	(one contract)

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the offices of the Division Engineers in whose division the roads are to be improved or reconstructed. The addresses of the Division Engineers and the counties in which they are in charge will be furnished on request.

The especial attention of bidders is called to "Special Information for Bidders" in the itemized proposal specifications and contract agreement.

HERBERT S. SISSON,
Commissioner.
J. C. FINCH,
Secretary.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 22	Garfield Heights (Cleveland P. O.), O.	Aug. 18
Aug. 24	Baltimore, Md.	Aug. 11
Aug. 27	Lancaster, Cal.	Aug. 18
Aug. 29	Carthage, N. Y. Adv. Aug. 11 and 18.	Aug. 11
Sept. 1	Verona, Pa.	July 21
Sept. 1	Buffalo, N. Y. Adv. Aug. 18.	Aug. 18
Sept. 6	Kittaning, Pa. Adv. Aug. 18.	Aug. 18

SEWERS

Bids Close		See Eng. News-Record
Aug. 22	Casper, Wyo.	Aug. 11
Aug. 22	Wash., D. C. Adv. Aug. 11 and 18.	Aug. 11
Aug. 22	Green Bay, Wis.	Aug. 18
Aug. 22	Cincinnati, O.	Aug. 18
Aug. 23	Burbank, Cal.	Aug. 11
Aug. 24	McGregor, Ia.	Aug. 18
Aug. 24	Rock Rapids, Ia.	Aug. 18
Aug 24	Long Island City, N. Y.	Aug. 18
Aug. 25	Clarksville, Ark.	Aug. 18
Aug. 25	Ottumwa, Ia.	Aug. 18
Aug. 26	Morrison, Ill. Adv. Aug. 18.	Aug. 18
Aug. 26	Detroit Mich.	Aug. 18
Aug. 30	Monroe, Mich. Adv. Aug. 18.	Aug. 18
Sept. 6	Canton, S. D.	Aug. 18
Sept. 6	Opelousas, La.	Aug. 18
Sept. 6	St. Louis, Mo.	Aug. 18

BRIDGES

Bids Close		See Eng. News-Record
Aug. 19	Cobleskill, N. Y. Adv. Aug. 4 to 18.	Aug. 4
Aug. 23	North Carolina	Aug. 11
Aug. 23	Trenton, N. J.	July 28
Aug. 23	Valley City, Ill. Adv. Aug. 11 and 18.	Aug. 11
Aug. 23	Illinois	Aug. 18
Aug. 23	Cincinnati, O.	Aug. 18
Aug. 24	New Jersey Adv. Aug. 11 and 18.	Aug. 11
Aug. 24	Cleveland, O.	Aug. 11
Aug. 24	Waterloo, N. Y.	Aug. 18
Aug. 24	Rexford, N. Y.	Aug. 18
Aug. 25	Streator, Ill. Adv. Aug. 11 and 18.	Aug. 18
Aug. 26	Wellington, Kan.	Aug. 11
Aug. 29	Pittsburgh, Pa.	Aug. 18
Aug. 29	Michigan	Aug. 18
Aug. 30	Kelso, Wash.	July 28
Aug. 31	New Jersey Adv. Aug. 18.	Aug. 13
Sept. 3	Madison, W. Va.	Aug. 18
Sept. 7	Kingman, Kan.	June 30

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Aug. 22	Mt. Ayr, Ia.	Aug. 18
Aug. 23	Redwood Falls, Minn.	Aug. 11
Aug. 24	Windom, Minn.	Aug. 18
Aug. 24	Sheboygan, Wis.	Aug. 18
Aug. 25	Benton, Mo.	Aug. 4
Aug. 25	Emmetsburg, Ia.	Aug. 18
Aug. 31	Newton, Ill. Adv. Aug. 18.	Aug. 18
Sept. 6	Mason City, Ia.	Aug. 11
Sept. 8	Aitken, Minn.	Aug. 18

STREETS AND ROADS

Bids Close		See Eng. News-Record
Aug. 22	Watertown, S. D.	Aug. 11
Aug. 22	Louisiana	Aug. 11
Aug. 22	Eagle River, Mich.	Aug. 11
Aug. 22	North Carolina	Aug. 11
Aug. 22	Wash., D. C.	Aug. 11
Aug. 22	Santa Barbara, Cal.	Aug. 18
Aug. 22	San Diego, Cal.	Aug. 18
Aug. 23	Worthington, Minn.	Aug. 4
Aug. 23	Anoka, Minn.	Aug. 4
Aug. 23	North Carolina	Aug. 11
Aug. 23	Kentucky	Aug. 11
Aug. 23	Springfield, Ill.	Aug. 18
Aug. 23	Ottawa, Kan.	Aug. 18
Aug. 23	Carthage, Mo.	Aug. 18
Aug. 23	Ionia, Mich.	Aug. 18
Aug. 23	Mamaroneck, N. Y. Adv. Aug. 18.	Aug. 18
Aug. 23	Illinois	Aug. 18
Aug. 24	Delaware Adv. Aug. 4 and 18.	Aug. 4
Aug. 24	Rhode Island Adv. Aug. 11 and 18.	Aug. 11
Aug. 24	Camden, Ark.	Aug. 11
Aug. 24	Cleveland, O.	Aug. 18
Aug. 24	Bad Axe, Mich.	Aug. 18
Aug. 24	Colorado	Aug. 18
Aug. 24	Weehawken, N. J.	Aug. 18
Aug. 24	Long Island City, N. Y.	Aug. 18
Aug. 24	St. George, S. I., N. Y.	Aug. 18
Aug. 24	New York, N. Y.	Aug 18
Aug. 25	Ontario	Aug. 11
Aug. 25	Carthage, Mo.	Aug. 18
Aug. 25	Bessemer, Mich.	Aug. 18
Aug. 25	Anderson, S. C.	Aug. 18
Aug. 25	Virginia	Aug. 18
Aug. 25	Walhalla, S. C.	Aug. 18
Aug. 25	West Hoboken N. J.	Aug. 18
Aug. 26	Wellington, Kan.	Aug. 4
Aug. 26	Ontonagon, Mich.	Aug. 18
Aug. 26	Wellington, Kan.	Aug. 18
Aug. 26	—New York Adv. Aug. 18.	Aug. 18
Aug. 26	Ohio	Aug. 18
Aug. 26	Gaylord, Minn.	Aug. 18
Aug. 27	Crockett, Tex.	Aug. 18
Aug. 27	Benwood, W. Va.	Aug. 18
Aug. 29	Ft. Worth, Tex.	Aug. 18
Aug. 29	Quitman, Tex.	Aug. 18
Aug. 29	Seattle, Wash.	Aug. 18
Aug. 29	California	Aug. 18
Aug. 29	Louisiana	Aug. 18
Aug. 30	Troy, Kan.	Aug. 4
Aug. 30	Washington	Aug. 18
Aug. 30	Durham, N. C.	Aug. 18
Aug. 30	Maryland Adv. Aug. 18.	Aug. 18
Aug. 30	New Mexico	Aug. 18
Aug. 31	Hiawatha, Kan.	Aug. 4
Aug. 31	New Jersey Adv. Aug. 18.	Aug. 18
Sept. 1	Fairmont, Minn.	Aug. 11
Sept. 2	Ottawa, Kan.	Aug. 4
Sept. 2	Rolling Fork, Miss.	Aug. 18
Sept. 6	Seattle, Wash.	Aug. 18
Sept. 6	Burlington, N. J.	Aug. 18
Sept. 6	Minneapolis, Minn.	Aug. 18
Sept. 9	Alabama	Aug. 18

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Aug. 23	Eldon, Mo.	Aug. 18
Aug. 23	Milwaukee, Wis.	Aug. 18
Aug. 23	St. Louis, Mo.	Aug. 18
Sept. 7	Harrisburg, Pa. Adv. Aug. 18.	Aug. 18

BUILDINGS

Bids Close		See Eng. News-Record
Aug. 22	Detroit, Mich.	Aug. 18
Aug. 22	Houston, Tex.	July 28
Aug. 22	Meadville, Pa.	July 28
Aug. 22	Cleveland, O.	Aug. 4
Aug. 22	Barnum, Ia.	Aug. 11
Aug. 22	Lewiston, Me.	Aug. 11
Aug. 22	Hull, Mass.	Aug. 18
Aug. 23	Cairo, W. Va.	Aug. 18
Aug. 23	Des Moines, Ia.	Aug. 18
Aug. 23	Fraser, Mich.	Aug. 18
Aug. 23	Fremont, Neb.	Aug. 18
Aug. 24	Charleston, S. C.	Aug. 11
Aug. 24	South St. Paul, Minn.	Aug. 11
Aug. 25	Detroit, Mich.	Aug. 18
Aug. 25	Milwaukee, Wis.	Aug. 18
Aug. 26	Kansas City, Mo.	Aug. 11
Aug. 27	Augusta, Kan.	July 21
Aug. 27	Hoytville, O.	Aug. 11
Aug. 27	Magee, Miss.	Aug. 18
Aug. 29	Cleveland, O.	Aug. 4
Aug. 29	Nashville, Tenn.	Aug. 11
Aug. 29	Struthers, O.	Aug. 18
Aug. 30	Mt. Vernon, Ind.	Aug. 4
Aug. 30	Webster City, Ia.	Aug. 11
Aug. 30	Fairfield, Ia.	Aug. 18
Aug. 30	Philadelphia, Pa.	Aug. 18
Aug. 30	Malden, Mass.	Aug. 18
Sept. 1	Bascom, O.	Aug. 4
Sept. 1	Detroit, Mich.	Aug. 18
Sept. 1	Colorado	Aug. 18
Sept. 1	Detroit, Mich.	Aug. 18
Sept. 1	Blanford, Mass.	Aug. 18
Sept. 1	Upper Darby, Pa.	Aug. 18
Sept. 1	Mahanoy City, Pa.	Aug. 18
Sept. 6	Lincoln, Neb.	July 21
Sept. 6	Mankato, Minn.	Aug. 18
Sept. 9	Ravenna, O.	Aug. 4
Sept. 16	Great Bend, Kan.	Aug. 11
Sept. 16	Kearney (Arlington P. O.) N. J. Adv. Aug. 18.	Aug. 18
Oct. 1	Williamsport, Pa.	Aug. 4

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Aug. 22	Dredging—Detroit, Mich. Adv. July 28 to Aug. 18	July 28
Aug. 22	Dredging—Phila., Pa.	July 28
Aug. 22	Buildings—Norfolk, Va.	Aug. 4
Aug. 22	Dredging — Los Angeles, Cal.	Aug. 11
Aug. 23	Building, Wash., D. C.	Aug. 4
Aug. 24	Mechanical Equipment—Boston, Mass.	Aug. 11
Aug. 26	Mailing Shed.—Monmouth, Ill. Adv. Aug. 18.	Aug. 18
Aug. 29	Alterations to Post Office — Eugene, Ore.	Aug. 11
Aug. 29	Reservoir—Chicago, Ill.	Aug. 18
Aug. 30	Hospital—Lake City, Fla.	Aug. 4
Aug. 31	Dredging, Detroit, Mich.	Aug. 4
Aug. 31	Sprinkler System—Charleston, S. C. Adv. Aug. 11 and 18.	Aug. 11
Aug. 31	Ash Bunker, Power House Extension, etc.—Annapolis, Md. Adv. Aug. 11 and 18.	Aug. 11
Aug. 31	Gun Shed—Norfolk, Va. Adv. Aug. 11 and 18.	Aug. 11
Sept. 2	Barges—Pittsburgh, Pa. Adv. Aug. 11 and 18.	Aug. 11
Sept. 5	Wreck Removal — Norfolk, Va. Adv. Aug. 11 and 18.	Aug. 11
Sept. 5	Steel Barges — Memphis, Tenn. Adv. Aug. 11 and 18.	Aug. 11
Sept. 7	Dredging—Phila., Pa. Adv. Aug. 11 and 18.	
Sept. 7	Quay Wall Extension—San Diego, Cal.	Aug. 11
Sept. 7	Riprapping Dike — Mare Island, Cal.	Aug. 11
Sept. 7	Dredging and Filling, etc.—San Diego, Cal.	Aug. 11
Sept. 7	Crane—South Boston (Boston P. O.), Mass.	Aug. 11
Sept. 7	Crane — Puget Sound, Wash.	Aug. 11
Sept. 14	Pumping Units — Denver, Col.	July 28
Sept. 15	Airship Hangar—Belleville, Ill. Adv. Aug. 18.	Aug. 18
Sept. 21	Machine Shop—Pearl Harbor, H. T.	Aug. 11
Sept. 22	Emergency Dams — Seattle Wash. Adv. Aug. 11 and 18.	Aug. 11

MISCELLANEOUS

Aug. 22	Dock Wall, etc. — Buffalo, N. Y.	Aug. 11
Aug. 22	Asphalt—St. Paul, Minn.	Aug. 18
Aug. 23	Dock—Mamaroneck, N. Y. Adv. Aug. 18.	Aug. 18
Aug. 23	Electric Lighting System—Jackson, Minn.	Aug. 18
Aug. 24	Gyratory Crusher, etc.—New York, N. Y.	Aug. 18
Aug. 26	Incinerators, Phila., Pa. Adv. July 28 to Aug. 18.	Aug. 4
Aug. 26	Ferry Landing—Palmyra, N. J.	Aug. 4
Aug. 26	Breakwater—Ft. William, Ont.	Aug. 4
Aug. 26	Steam Generating Equipment —Hammond, Ind.	Aug. 11
Aug. 26	New York	Aug. 18
Aug. 30	Stations—Phila., Pa.	Aug. 18
Aug. 31	Culverts, etc.—New Jersey Adv. Aug. 18.	Aug. 18
Sept. 1	Incinerators — Houston, Tex.	Aug. 18
Sept. 1	Wharf and Transit Shed—Houston, Tex.	Aug. 18
Sept. 2	Motor Truck, Wauwatosa, Wis.	Aug. 18
Sept. 7	Dredge—Belzoni, Miss. Adv. Aug. 11 and 18.	Aug. 11
Sept. 9	Piers—Phila., Pa. Adv. Aug. 18.	Aug. 18
Sept. 12	Garbage Disposal—Providence, R. I. Adv. Aug. 11 and 18.	Aug. 11
Sept. 17	Railway Ties — Toronto, Ont.	Aug. 11

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

W. Va., Elkin—City election Aug. 27, to vote on $125,000 bonds to improve and extend waterworks system, work includes new filtration and pumping plants, additions to reservoir, and extensions to mains. H. G. Kump, mayor.

Tenn., Nashville—City election in September to vote on $500,000 bonds to extend water mains to outlying districts of city. P. F. Treanor, water comr.

Ill., Macomb—City plans to enlarge waterworks and laying new mains. About $40,000. B. W. McLean, Mayor. Engineer not selected.

Ill., West Hammond (Hammond, Ind., P. O.)—City having plans prepared laying 6 and 8-in. water mains. About $25,000. H. A. Stockowiez, clk. W. F. Bridge, Reinbeck Bldg., engr.

Tex., Crowell—City plans to construct complete waterworks system, including machinery, pumping plant, reservoir, mains, etc. Bonds for $100,000 voted for project. L. Noland, Crowell, engr.

BIDS DESIRED

N. Y., Buffalo—Until Sept. 1, at office of A. W. Kreinheder, comr. Pub. Wks., Municipal Bldg., furnishing and installing three high pressure centrifugal steam turbine-driven fire pumps at Col. Francis G. Ward Pumping Sta.; advertised in this issue.

Pa., Kittaning—Until Sept. 6, by Armstrong Water Co., c/o W. H. Boardman, engr., 326 Walnut St., Phila., installing mechanical filteration plant; advertised in this issue.

O., Garfield Heights (Cleveland, P. O.)—Until Aug. 22, by village installing 11,955 ft. 8 in. c. i. water mains in Turney Rd. Former bids rejected. R. Hecker, Leader-News Bldg., Cleveland, engr. Noted Aug. 4.

Wis., Cedarburg—Until Aug. 30, by F. Schuette, city clk., building waterworks system including (1) drilling 10-12 in. well, 1,200 ft. deep, (2) rein.-con. reservoir 42 ft. in diameter, 15 ft. deep, (3) 1 air compressor, air tank and motor driven centrifugal pump, (4) 20 x 26 ft. brick pumping station, (5) 610.9 ton x 4-10 in. c.i. pipe, 26,461 lb. castings, 56 fire hydrants with steamer nozzles and forty-four 2-10 in. valves, etc., (6) 5,000 cu.yd. rock excav., laying 35,286 ft. 6-12 in. vitr. pipe sewers, and 38,439 ft. 2-10 in. water pipe, etc., (7) 50,000 gal. steel tank on 90 ft. steel tower, concrete foundation, (8a) 2 sewage disposal tanks, (8b) sewage pumping station and pneumatic ejector. W. G. Kirchoffer, 22 North Carroll St., Madison, engr.

Ark., Clarksville—See "Sewers."

Cal., Lancaster—Until Aug. 27, by Bd. Supervs. Los Angeles Co., (Los Angeles) constructing waterworks system here. About $60,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

6 in. water mains in Raymond St. and 1,500 ft. in Clark St., 100 ft. 8 in. in Sherman St., and 12 ft. in Skeel St. Work involves 108 ton c.i. pipe. Work will be done by day labor. F. P. Cobb, City Hall, engr.

★**N. J., Gloucester**—Remington & Vosbury, engrs., 6th and Market Sts., Camden, let following contracts for reconstruction water works and pumping station, standpipe to Chicago Bridge & Iron Co., 30 Church St., New York City, $16,450; sediment basin, foundations and pumping station building, to Nelson Pedley Co., Lincoln Bldg., Phila., $34,900; machinery and piping, to Electric Power & Eng. Co., Phila., $39,000; 2 wells, to Artesian Well Drilling Co., Real Estate Trust Bldg., Phila., $4,000. Noted July 21.

O., Berea—Village received bids for filter equipment, steel tank, coal conveyor, concrete basin, filter beds and filter house, from Burnett Constr. Co., Columbus, $14,900; Serv. Constr. Co., 6110 Euclid Ave, Cleveland, $15,500; Hunkin-Conkey Constr. Co., Century Bldg., Cleveland, $15,600. Noted April 7.

★**Minn., Willmar**—City let contract extending water works system, to Rahr & Pratt, Pipestone, $15,456. Noted July 21

Sewers

PROPOSED WORK

N. J., Palmyra—Palmyra Twp. receive bids in September building 10 mi. 8-30 in terra cotta sanitary and storm sewers in all streets. About $50,000. Remington & Vosbury, 6th and Market Sts., engrs.

Tenn., Lebanon—City having plans prepared for sewerage system. Bonds for $200,000 voted for project. B. H. Klyce, 712 Fourth and First Natl. Bank Bldg., Nashville, consult. engr.

O., Columbus—City having plans prepared for sanitary sewerage system to connect with sewers here and to reach municipalities of Upper Arlington, Grandview and Marble Cliff, as well as considerable territory which is not in any municipality. About $185,000. R. H. Simpson, city engr.

Ill., Elmhurst—City having plans prepared laying 8-12 in. vitr. tile sewers in various streets. About $25,000. F. M. Neuman, clk. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Mt. Olive—City having plans prepared building combination storm and sanitary sewers in various streets. About $35,000. W. Meyer, mayor. Holbrook, Warren & Andrew, Decatur, engrs.

Ia., Sioux City—City having plans prepared building sewers in various streets, north of Morningside Ave., involving 40,700 lin. ft. 8-10 in. sewer pipe, 95 standard brick manholes, etc. About $40,000. A. M. Schott, city engr.

S. D., Canton—City having plans prepared building storm sewers in various streets. About $25,000. G. Hokenstad, clk. Smith & Reeves, Mitchell, engrs.

S. D., Mitchell—City plans to build lateral sewers in various streets. About $30,000. F. McGovern, aud., F. J. Hansen, Mitchell, engr.

Ont., London—City Council having plans prepared for sewage disposal plant. About $200,000. Prices wanted on materials and equipment. H. A. Brazier, City Hall, engr.

BIDS DESIRED

N. Y., Long Island City—Until Aug. 24, by M. E. Connolly, pres. Queens Boro, 68 Hunterspoint Ave., building sewers in (1) Central Ave. from Proctor St. to Weisse Ave., Morton Ave. from Central to Metropolitan Aves., 2nd Ward, (2) Manor Ave. from Fulton St. to Atlantic Ave., 4th Ward, (3) Metropolitan Ave. from 130th St. (Maure Ave.) to 127th St. (North Wickes Pl.), 129th (Ambrose) St. from Metropolitan Ave. to Kew Gardens Rd., 127th St. (North Wickes Pl.) from Metropolitan Ave. to Kew Gardens Rd., 4th Ward; receiving basins in four corners of Boulevard and Bodine St., 1st Ward.

La., Opelousas—Until Sept. 6, by Bd. Aldermen, building sewers in Grolee St. E. L. Loeb, mayor.

O., Cincinnati—Until Aug. 22, by Director Pub. Serv. building 2,380 ft. 18-66 in. brick, concrete or segmental block sewer in Millsdale St., etc. About $47,100. W. Sullivan, City Hall, engr.

Mich., Detroit—Until Aug. 26, by Dept. Pub Wks., constructing 3,500 ft. sewer in Sect. 2 Highland Park Arm in 3rd Ave. from Edison Ave. to city line; 5,178 ft. in Jos. Campau Ave. and Dunn Rd. from Harper to Conant Aves.; 4,449 ft. Sect. 5 Bates St. in Brush St. from Piquette to Euclid Aves.; 3,395 ft. in Gratiot Ave. from Joann Rd. to Linhurst Ave.; 3,480 ft. Marquette Ave. arm in Marquette Ave. from Lincoln Ave. to 16th St.; 3,115 ft. Van Dyke Ave. Arm, Lynch Rd. Sewer, from Lynch Rd. to Forest Lawn Ave., all sewers must be constructed in tunnel and may be of brick or monontnic concrete. C. W. Hubbell, city engr.

Mich., Monroe—Until Aug. 30, by F. M. Kressbach, city clk., building Borgess St. storm sewerage system; advertised in this issue.

Sewers (Continued)

Ill., Morrison—Until Aug. 26, by Sewer Dept., at City Hall, constructing sewers in Genesee Ave. and East Winfield St. E. O. Hills, engr.; advertised in this issue.

Ill., Springfield—Until Aug. 23, by city, c/o A. T. Baumann, mayor, laying 12 in. glazed sewer pipe in Carpenter St. About $25,000. W. Seeley, 102 East Cook St., engr.

Wis., Green Bay—Until Aug. 22, by W. Kerr, city clk., building 7,232 lin. ft. 6-18 in. vitr. pipe sewers in various streets,.

Ia., McGregor—Until Aug. 23, by city, building sanitary sewers, involving 7,225 lin.ft. 6-8 in. pipe, 12 manholes, 3 flush tanks and watermain extension, involving 1,200 lin.ft. 4 in. c.i. pipe and 4 hydrants. About $25,000. Tschirgi & Sons, 712 Amer. Trust Bldg., Cedar Rapids, engrs.

Ia., Ottumwa—Until Aug. 25, by city, c/o M. A. Sheehan, clk, laying 10-15 in. tile sewer pipe in various streets. About $25,000. J. T. Brady, city engr.

Ia., Rock Rapids—Until Aug. 24, by city, building sanitary sewers in various streets, involving 7,116 lin.ft. 8-15 in. pipe, 15 manholes, 3 flush tanks, etc. About $25,000. J. K. Medbury, clk.

S. D., Canton—Until Sept. 6, by city, building 3,905 lin. ft. 24-36 in. storm sewers in various streets. About $25,000. Smith & Reeves, Mitchell, engrs.

Mo., St. Louis—Until Sept. 6, by city, building 547 ft. 9 in. circular outlet sewer in Hodiamont Ave. Sewer Dist. 1, Letting 1218. About $25,000. E. R. Kinsey, clk. Private plans.

Ark., Clarksville—Until Aug. 25, by Bd. Pub. Impvts., furnishing and laying 11,000 lin. ft. 6 and 8 in. vitr. sewers, and 21 concrete manholes, 4 ft. diameter, also 11,000 lin. ft. 4 and 6 in. c.i. water mains, 16 standard 4 in. fire hydrants. About $25,000. W. L. Winters, Merchants Bank Bldg., Ft. Smith, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., West Roxbury (Boston P. O.) City let contract building sewerage system in Glendale Rd. Sect. 1 and North Ave., to A. Barnfaldi, Somerville, $46,554.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., opened bids Aug. 12, building sewers in (1) 76th St. (Lott Ave.) from 88th Ave. (Syosset St.) to Jamaica Ave., (Rector) 77th St. from 90th Ave. (Clinton Pl.) to Jamaica Ave., etc., (2) 76th St. (Lott Ave.) from 88th Ave. (Syosset St.) to Jamaica Ave., etc., (3) 76th St. (Lott Ave.) from 88th Ave. (Syosset St.) to Jamaica Ave., etc., (4) Ferguson St. from 51st St. to Tiernan Ave., Roosevelt Ave. from 51st to De Peyster Sts., from F. Frey, 818 Ocean Parkway, Brooklyn, (1a) $36,493; H. J. Mullen Contg. Co., Fulton St. and Twombly Pl., Jamaica, (1a) $37,367, (1b) $37,471, (2a) $45,831, (2b) $45,726; Green Contg. Co., 734 Vernon Ave., Astoria, (1a) $37,990, (1b) $36,664, (2a) $46,375, (2b) $45,836, (4a) $124,424, (b) $122,497; A. Paino, Corona, (1b) $34,084, (2b) $37,829; G. L. Schrade, (2a) $51,494, (2b) $49,170; F. J. Clancy, 460 Lockwood St., Astoria, (3a) $40,783; F. Spinella, 142 Jefferson St., Brooklyn, (3a) $41,305; Seaside Contg. Co., (3a) $42,968, (4a) $178,387, (4b) $123,944; P. Litchfield, 100 East 17th St., New York City, (4b) $125,345. Noted Aug. 4.

N. Y., New York—H. H. Curran, pres. Manhattan Boro Municipal Bldg., opened bids Aug. 9, building sewer in 26th St. from bulkhead line of East River to Madison Ave. and Madison Ave. from East 25th to East 31st Sts., etc. from F. E. Cranford Co., 149 Remsen St., Brooklyn, $647,000; P. McGovern, Inc., 50 East 42d St., $674,700. Booth & Flinn, Ltd., Green and Tompkins Ave., $682,000. Noted July 21.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Aug. 12, building sanitary and storm sewers in Clarkson St. from bulkhead at Hudson River to Varick St. and intercepting sanitary sewer in West St. from Clarkson to Canal Sts., from Necaro Co., Inc., 97 Court St., Brooklyn, $386,931; P. McGovern, Inc., 50 East 42nd St., $481,171; F. Spinella, 142 Jefferson St., Brooklyn, $444,284.

★Pa., Phila.—City let contract constructing 6 ft. 6 in. sewer in Wissahickon Ave. low lever intercepting sewer through Fairmount Park from Green to Gorgas Lanes, to J. Perma, 65th and Callowhill Sts., about $100,000; Venango St. from Allen to Edgemont Sts., to C. A. Conan, Mud Puddle Lane along tracks Pennsylvania R.R., $55,000.

★O., Cleveland Heights (Warrensville P. O.)—Cedar Heights Land Co. let contracts to Hadded-Mall Co., Schofield Bldg., Cleveland, building sewers in Wynn Ave., cost $2,188, Raymont Ave., $18,700, Tellamore Ave., $9,569, Farland Ave., $3,017, Cedar Brook Blvd., $10,124, Jackson Ave., $12,902. Work involves 18,080 ft. 12-24 in. vitr. pipe.

★O., Columbus—W. H. Duffy, dir. Pub. Serv., let contract building sewage pumping station on Nelson Rd., to R. H. Evans & Co., 8 East Broad St., $15,868; equipment, to Dravo-Doyle Co., Diamond Bank Bldg., Pittsburgh, $6,098; laying trunk sewer through Linden, to Gaty Constr. Co., 185 North Water St., $68,486. Noted July 28.

Mich., Detroit—City received bids building (1) Lateral Sewer 3318, (2) 3319, (3) 3320, (4) 3420, (5) 3468, (6) 3478, (7) 3496, (8) 3497, (9) 3498, from Detroit Contg. Co., 827 Ford Bldg., (1) $20,933, (2) $14,129, (3) $13,346, (7) $5,212, (9) $5,308; Western Const. Co., 1208 Ford Bldg., (1) $23,657, (2) $16,685, (3) $16,227, (4) $4,114, (6) $11,063, (7) $5,821; Detroit Drainage Constr. Co., 400 Penobscot Bldg., (1) $23,951, (2) $16,774, (3) $16,658, (7) $5,850; Liberty Constr. Co., 36 State St., (4) $3,830; R. D. Baker, 1631 Elmhurst St., (4) $3,999; A. Rossi, 1778 East Grand Blvd., (5) $9,999; S. Duponovich, Penobscot Bldg., (5) $10,055; V. Teetaert, 448 St. Clair St., (5) $19,614; C. R. Lennane, 809 Union Trust Bldg., (6) $9,811; A. DiFazio & Son, 1556 St. Joseph St., (8) $3,300; J. Zuccola, (8) $3,362; Gustin & Co., McLean Ave., (8) $3,022; Mc Cordic Constr. Co., Penobscot Bldg., (9) $5,560; Oakwood Constr. Co., 165 Fort Bldg., (9) $6,394. Noted July 21.

Mich., Detroit—Dept. Pub. Wks. received bids building sewers (1) Sect. 4 Bates St. Sewer in Brush St. from Canfield to Piquette Ave., (2) Sect. 4 Jos. Campeau Ave. Sewer, (3) Bates St. Sewer, Alfred St. Arm, in Alfred St. from Brush St. to Woodward Ave., (4) 3rd Ave. Sewer, Stanley Ave. Arm, (5) Six Mile Rd. Sewer, Mt. Elliott Ave. Arm, (6) Highland Park Arm, Sect. 1, from Jaynes & Affeld, 1208 Ford Bldg., (1) $532,258; W. Blanck & Co., 827 Ford Bldg., (1) $506,920, (5) $66,852; Booth & Flinn, 114 Cadillac Sq., (1) $492,556, (2) $469,985, (3) $104,575; J. A. Mercier, 216 Hammond Bldg., (2) $419,557, (4) $54,098; G. R. Cooke, 1260 Penobscot Bldg., (2) $413,836, (6) $493,903; R. D. Baker, 1631 Elmhurst St., (3) $110,310, (4) $52,196, (5) $66,366; J. Bollin Co., 1259 Book Bldg., (3) $110,244; W. Porath, 1410 West Grand Blvd., (4) $51,866, (5) $69,244; Lennane & McIlvenna, 1205 Book Bldg., (6) $528,950; J. Connell Constr. Co., 610 Lincoln Bldg., (6) $527,468. Noted July 21.

★Wis., Milwaukee—City let contracts to Kehrein Constr. Co., 988 11th St., furnishing and laying vitr. sewers in Clarke St., $8,511, 51st St., $3,098. Hadley St., $453; T. Szuklaski, 1089 American Ave., in Clevelane Ave., $1,712, 19th St., $5,146, 15th Ave., $2,803; W. T. Werner, 675 Hi Mount Blvd., in 50th St., $2,838, 48th St., $2,763, 49th St., $1,662; G. E. Zimmerman, 3402 Grand Ave., in 6th St., $10,576. Noted Aug. 4.

Bridges

PROPOSED WORK

N. J., Mays Landing—Bd. Freeholders Atlantic Co. having plans prepared for 72 ft. bridge, 30 ft. wide, over Babcock Creek. About $50,000. A. H. Nelson, Guarantee Trust Bldg., Atlantic City, engr.

Pa., Phila.—City having plans prepared for 110 ft. bridge, 50 ft. wide, over Reading R.R. tracks on Poplar St. About $50,000. F. C. Dunlay, 216 City Hall, engr.

BIDS DESIRED

N. Y., Rexford—Until Aug. 24, by C. S. Cadle, supt. Pub. Wks., Capitol, Albany, building bridge over Mohawk River between here and hamlet of Aqueduct, involving 3,100 cu.yd. excav., 811 cu. yd. 1-1-½-3 and 858 cu.yd. 2d Class concrete, 560,000 lb. structural steel and 85,000 lb. metal reinforcement, etc. About $91,296.

N. Y., Waterloo—Until Aug. 24, by C. S. Cadle, supt. Pub. Wks., Capitol, Albany, building concrete slab bridge, over Old Cayuga and Seneca Canal, at Virginia St., involving 900 cu.yd. excav., 540 cu. yd. 2d Class and 270 cu.yd. 1st Class concrete and 29,000 lb. metal reinforcement, etc. About $25,023.

New Jersey — Until Aug. 31, by State Highway Comn., Broad St. Bank Bldg., Trenton, constructing Route 12, Sect. 4, between New Village and Pleasant Valley, Warren Co. and Bridges 7, 6, 5 and 3 also Culverts C, D and 4. C. A. Mead, 790 Broad St., Newark, bridge engr.; advertised in this issue.

W. Va., Madison—Until Sept. 3, by Clerk Boone Co., building 2 steel bridges across Spruce Creek, one near Ramage and the other near Low Gap. R. G. Gartner, co. engr.; advertised in this issue.

O., Cincinnati—Until Aug. 23, by Comrs. Hamilton Co., building substructure for bridge over Little Miami River on Kellogg Ave., involving 2½ tons reinforcing steel imbeded in concrete, 30 cu.yd. 1:2:4 and 2,345 cu.yd. 1:3:6 concrete, cost $30,165; superstructure involving, 700 tons steel. Bidders to furnish plans for 2 riveted trusses 400 ft. span c. to c., 30 ft. wide, and carry track for electric car, two 5 ft. sidewalks paved with 3 in. concrete roadway paved with wood block, $98,000. E. A. Gast, Court House, engr.

Michigan—Until Aug. 29, by State Highway Dept., at office Bd. Rd. Comrs. Saginaw Co., (Saginaw), building Bridge 730,101, 90 ft. span, 20 ft. roadway, in Albee Twp., involving 182.6 cu. yd. rein.-con., 228 cu.yd. concrete and 61,500 lb. steel.

Illinois—Until Aug. 23, by Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, constructing 3 concrete bridges, Route 5, Sect. 23-B, J. Davies and Stephenson Counties; 1 steel bridge, Route 7, Sect. F-1, Will Co.; 1 steel bridge, Route 18, Sect. 13-B, Kendall Co.; 5 concrete bridges, State Aid, Sect. F, Monroe Co., 2 concrete bridges, Route 15-D, Sect. O, Woodford Co. C. Older, ch. highway engr.

Ill., Streator—Until Aug. 25, by Streator Drain Tile Co., constructing rein.-con. substructure for railroad bridge across Vermillion River. M. C. Taylor, Bloomington, engr.; advertised in this issue.

Washington—See "Streets and Roads."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Fla., Chattahochee—State Rd. Dept., Tallahassee, let following contracts building approach spans to Apalachicola River Bridge; 3,600 ft. creosoted timber trestle on west end, to W. T. Hadlow & Co., Baldwin Bldg., Jacksonville, $92,368, 840 ft. concrete approach, east end, to A. Bentley & Sons Co., Talleyrand Ave., Jacksonville, $66,863. Noted July 14.

Tennessee—See "Streets and Roads."

★Ky., Paintsville—Johnson Co. let contract building bridge over Big Sandy River, to Champion Bridge Co., Wilmington, O. About $50,000.

★Ohio—Dept. Highways and Pub. Wks., Columbus, let contracts building bridges in following counties:

Allen Co., Sect. "K" Lima Sandusky Rd., to H. B. Waters, Columbus, $1,530.

Marion Co., Sect. "G" Marion-Galion Rd., V. S. Secord, Marion, $1,087.

Cuyahoga Co., Sect. "J" Twinsburg-Elyria Rd., rein.-concrete bridge, over Chippewa Creek, F. W. Mark, Leader-News Bldg., Cleveland, $92,800.

Marion Co., Sect. "I-1" Marion-Marysville Rd., 1.49 mi., constructing extra base course of waterbound macadam, Canty, Freedman Co., Youngstown, $8,808. Noted Aug. 11.

★Illinois—Dept. Pub. Wks. and Bldgs. Div. Highways, Springfield, let contracts to B. F. Clark & Sons, 920 Century Bldg., St. Louis, Mo., building steel bridge on Sect. 27-B, Route 10, Sangamon Co., $16,905; 2 concrete bridges on Sect. 7-B, Route 13, Williamson Co., $11,427; steel bridge on Sect. 8-C, Route 13, Saline Co., $6,126; concrete bridge on State Aid Sect. F, Adams Co., $5,100; J. D. Anderson, Beecher City, 2 concrete bridges on Sect. 55-B, Route 3, Greene Co., $4,896; F. Kaney, Forreston, 4 concrete bridges on Sect. 22-B, Route 5, Stephenson Co., $11,907; Gould Constr. Co., 501-17 Willman Ave., Davenport, Ia., 1 concrete bridge on Sect. 12, Route 8, Tazewell Co., $16,639; Decatur Bridge Co., East Eldorado St. and C. I. and W. Rd., Decatur, steel bridge on Sect. 27-C, Route 10, Sangamon Co., $31,407; T. Hlad, Edwardsville, 6 concrete bridges on Sect. 6-B, Route 13, Williamson Co., $14,371; Vincennes Bridge Co., Vincennes, Ind., steel bridge on Sect. 8-B, Route 13, Saline Co., $6,688; G. C.

Bridges (Continued)

Cuming, Industry, 2 concrete bridges on State Aid Sect. S, McDonough Co., $3,090; J. W. Baptist & Co., Jacksonville, 7 concrete bridges on State Aid Sect. T, McDonough Co., $2,760; H. C. Holmes, Macomb, 1 concrete bridge on State Aid. Sect. H, McDonough Co., $3,150.

★Ill., Fox Lake—Lake Co., c/o C. E. Russell, supt. highways, (Waukegan), let contract building steel span lattice truss bridge, concrete flooring and sidewalk, over Nippersing Channel, near here, to Federal Bridge & Structure Co., Waukegan. About $25,000. Noted July 28.

Kan., Wichita—See "Streets and Roads."

★Ia., Atlantic—Cass Co. let contracts constructing 4 box culverts, 4 I-beams and 2 circular culverts, to Des Moines Eng. & Constr. Co., Des Moines, $24,666; 1 pony truss, to Standard Bridge Co., 1302 City Natl. Bank Bldg., Omaha, Neb., $4,213. Noted July 14.

★Ia., Greenfield—Adair Co. let contracts building (1) 1 pony truss, (2) 12 box and 6 circular culverts, (3) 10 box culverts, 1 pony truss and 1 I-beam, to Wilson Concrete Co., Red Oak, (1) $6,764, (2) $10,968, (3) $15,258. Noted July 14.

Minn., Duluth—St. Louis Co. let contract building 15-80 ft. concrete and steel bridges (trusses and I-beams.) 18 ft. wide, between Virginia and Ely, to Minneapolis Bridge Co., Metropolitan Life Bldg., Minneapolis, $15,578; A. T. Nelson, 727 East Superior St., $960; Great Northern Bridge Co., Kasota Bldg., Minneapolis, $3,990. W. S. Hewitt, Metropolitan Bank Bldg., Minneapolis, $10,617.

★Kan., Wichita—City let contract constructing 422 ft. rein.-con. bridge on Maple St. over Arkansas River, to have 58-68 ft. spans, 35 ft. roadway and two 6 ft. sidewalks, involving 4,500 cu.yd. rein.-con., etc., to Koss Constr. Co., 5th St. and Interurban Ry., Des Moines, Ia. About $113,000. Noted Aug. 4.

Mo., St. Louis—Bd. Pub. Serv. opened bids Aug. 9 building 74 ft. steel truss span bridge on Natural Bridge Rd., from H. B. Dawson, 1223 Clara Ave., $29,159; Gamble Constr. Co., 620 Chestnut St., $29,075. Noted July 21.

Montana—See "Streets and Roads."

★Tex., San Angelo—Tom Green Co. let contract constructing rein.-con. bridge, to Brown-Abbott Co., Loraine, $43,326. Noted July 28.

Cal., Pasadena—City received bids building bridge over Arroyo Seco, at San Rafael Heights, from R. N. Nikcevich, 652 North Bway., Los Angeles, $148,000; C. P. Day and J. C. Bannister, 903 North Mariposa Ave., Los Angeles, $152,700; W. M. Ledbetter, 601 Pacific Electric Bldg., Los Angeles, $154,600. Noted May 12.

Railways

PROPOSED WORK

Ontario—Works Com. of Toronto voted $292,000 bonds to build 2½ mi. double track on Yonge St. between Farnham Ave. and done by day labor. R. C. Harris, City Hall, north city limits. Work will probably be engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Louisiana—Crowell & Spencer Lumber Co., Long Leaf, let contract constructing 4½ mi. railway extension, involving 55 acres clearing, 12 acres grubbing, 95,000 cu.yd. earth, 20,000 cu.yd. loose rock and 5,000 cu.yd. solid rock excav., etc., to C. L. Flournoy & Co., Jasper, Tex.

Excavation and Dredging

BIDS DESIRED

Ill., Newton—Excavation—Until Aug. 31, by Comrs. Captain Pond Drainage and Levee Dist., at office of Kasserman & Kasserman, attys., Newton, excavating (1) 3.5 mi. new river channels, (2) 5.75 mi. river levee, (3) 6 mi. diversion ditch, etc., (4) 78.6 acres clearing. E. F. Mail, Robinson, engr.; advertised in this issue.

Wis., Sheboygan—Ditch—Until Aug. 24, by G. W. Wisselink, Hingham, secy. Sheboygan Co. Drainage Bd., building Project 6, involving 18,600 ft. 4-16 in. tile and 1,500 ft. open ditch; Project 7, 9,950 lin.ft. main ditch and 3,300 cu.yd. excav. J. Donohue Eng. Co., Sheboygan, engrs.

Ia., Emmetsburg—Drainage—Until Aug. 25, Bd. Supervs. Palo Alto Co., constructing improvements in D. D. 123, involving 39,785 lin.ft. 6-18 in. tile. W. T. Krieger and R. H. Fuller, engrs.

Ia., Mt. Ayr—Excavation—Until Aug. 22, by Ringgold Co., building 3 mi. new channel in Platte River, D. D. 2, involving 273,000 cu.yd. excav. E. E. Cornwall, aud.

Minn., Aitkin—Ditch—Until Sept. 8, by Aitkin Co., building Co. Ditch 34, involving 375,354 cu.yd. excav., 49 acres clearing, 6 timber bridges, 16 mi. leveling bank for roadway and 1,208 lin.ft. 15-48 in. corrugated metal culverts. About $65,906. H. C. Beecher, aud.

Minn., Windom—Ditches—Until Aug. 24, by Cottonwood Co., building Co. Ditch 21, involving 25,360 ft. 6-24 in. tile and 19,255 cu.yd. open work, about $21,855; Co. Ditch 23, 41,800 ft. 6-28 in. tile, $31,549; Co. Ditch 24, 36,300 ft. 6-22 in. tile, $18,772; Co. Ditch 28, 9,750 ft. 6-20 in. title, etc., $7,047; Co. Ditch 29, 32,730 ft. 6-28 in. tile, etc., $21,583; Co. Ditch 85, 25,900 ft. 6-24 in. tile, $12,562. L. J. Klock, Windom, engr. V. W. Cove, Windom, engr. for Ditch 85.

Streets and Roads

PROPOSED WORK

Mass., Boston—City plans to pave Post Office Sq., granite block on concrete base. About $40,000. J H. Sullivan, City Hall, engr.

Mass., Chicopee—City plans to cinder about 5500 ft. North Chicopee St. About $50,000. F. P. Cobb, city engr.

N. J., Mays Landing—Bd. Freeholders Atlantic Co. receives bids in October, paving 1½ mi. Pleasantville-Mays Landing Rd. through Sugar Hill, involving 18,097 sq.yd. bituminous concrete on concrete base, 1,570 lin. ft. concrete curb and 508 lin. ft. concrete gutter, etc. About $100,000. A. H. Nelson, Guarantee Trust Bldg., Atlantic City, engr.

Pennsylvania — State Highway Dept., Harrisburg, rejected bids opened Aug. 5, building Route 142, East Whiteland Twp., Chester Co.; 2 sections of Route 82, Crawford Co.; section of highway in Harbor Creek Twp., Erie Co; Route 290, Shenandoah, Boro., Schuylkill Co.; Route 17, Dushore Boro., Cherry Twp., Sullivan Co.; Route 187, North Salem Boro., Franklin Twp., Westmoreland Co. L. S. Sadler, highway comr. Noted Aug. 11.

Pa., Ferndale—Boro. election Sept. 20, to vote on $25,000 bonds to construct 2,000 ft. brick road. P. J. Bracker, clk.

Pa., Phila.—F. H. Craven, city dir. opens bids within 60 days paving with granite block portions of 53 streets, about $2,007,000; with asphalt and vitr. brick gutters portions of 65 streets, about $1,458,000; with asphalt block and granite block between car tracks portions of 6 streets, about $180,000; repaving with asphalt and building vitr. brick gutter portions of 87 streets, about $2,058,300.

Fla., Brooksville—City plans to lay 10,500 lin. ft. concrete sidewalks on Early, Liberty, West Jefferson and Howell Sts. About $25,000. C. M. Price, mayor. Engineer not announced.

Ky., Louisville—City soon receives bids improving and paving with asphalt, 5th, 28th, 10th, Jackson, Baxter, Brook, Fehr, Walnut, Hill, Madison and 18th Sts. About $162,000. W. Gottscholt, secy. Bd. Pub. Wks.

O., Troy—Miami Co. plans to grade and gravel surface 1 mi. Casstown-Fletcher Rd., 2½ mi. Lost Creek-Brant Rd., parts of Troy-Pleasant Hill Rd. and Karns Wheelock Rd., 6-20 ft. wide. About $75,000. W. Kinder, co. surv.

Ill., Canton—City having plans prepared paving Washington St., brick on concrete base. About $30,000. H. Motsinger, Canton, engr.

Ill., Kewanee—Bd. Local Impvts. plans to pave Main St., brick or asphalt. About $25,000. Engineer not selected

Ill., Peoria—City having plans prepared paving Hanssler Pl., brick or asphalt on concrete base. About $25,000. W. Moran, clk. L. D. Jeffries, 2707 Main St., engr.

Ill., Springfield—City having plans prepared paving Passfield St., vitr. brick on concrete base. About $25,000. W. Seeley, 102 East Cook St., engr.

Michigan—State Highway Dept., Lansing, soon receives bids grading, draining and surfacing 11½ mi. Federal Aid Project 37, Hillsdale and Calhoun Counties, 2 mi. concrete and 9½ mi. gravel; 2 mi. Assessment Dist. Rd. 235, Saginaw Co., stone-gravel or macadam. F. F. Rodgers, Lansing, state highway comr.

Mich., Detroit—City plans to pave with sheet asphalt on 8 in. concrete base and Medina curbstone Albert Ave. from Grand River to Yosemite Aves., about $13,200; Mt. Elliott Ave. from Conant Ave. to Lynch Rd., $145,900; Ferry Ave. from Helen Ave. to East Grand Blvd., $7,860; paving with one course concrete alley between Hartford, Scotten, Moore and Scovel Aves., $4,020; alley between St. Aubin, Hendrie and Medbury Aves., $2,190; "T" alley between Woodward Ave., John R. St., Belmont and Trobridge Aves., $5,180; alley between Avery, Commonwealth, Marquette and Holden Aves., $6,180; alley between Scotten, West Grand Blvd., Moore and Scovel Aves., $3,900; alley between Russel, Riopelle, Erskin and Eliot Aves., $3,750; alley between 12th St., Churchill Ave., West Grand Blvd. and Bethune Ave., $4,200; alley between Van Dyke, Maxwell, Sprague and Canfield Aves., $3,705; alley between Fisher, Crane, Gratiot and Lambert Aves., $5,290; alley between 12th St., Dunedin, Lothrop and La Mothe Aves., $1,890; alley between 18th, 17th, Linden and Poplar Sts., $3,280; alley between Oakland, Cameron, Alger and King Aves., $3,355; alley between Townsend, Baldwin, Forest and Warren Aves., $3,925; alley between Le May, Fairview, Mack and Canfield Aves., $9,825. C. W. Hubbell, city engr.

Mich., Grosse Pointe Farms (Grosse Pointe P. O.)—City having plans prepared grading and paving 2½ mi. Kerby Rd., Moran and Oak Sts., concrete or sheet asphalt on concrete base. About $155,000. R. H. Erley, Village Hall, engr.

S. D., Mitchell—City plans to pave Lawler St., brick on concrete base. About $95,000. F. J. Hansen, Mitchell, engr.

Tex., Bastrop—Bastrop Co. having plans prepared and soon receives bids, clearing, grubbing, grading, draining and surfacing 9.68 mi. Austin-Houston Highway, involving 23,969 cu. yd. earth excav., 355.2 cu. yd. 1:2:4 and 21.28 cu. yd. 1:3:6 concrete, 29,505 lb. reinforcing steel and 17,632.7 cu. yd. gravel surfacing. About $84,161. A. F. Mitchell, Cameron, co. engr.

Tex., Dallas—Dallas Co. plans to sell $2,700,000 bonds in October to improve various roads, including 15.4 mi. East Pike Rd., concrete, cost $511,740; 14.45 mi. Lancaster Rd., concrete, $484 060; 12.43 mi. Preston Rd., macadam, $207,581; 25.7 mi. Coppell-Irving Rd., macadam and concrete, $306,000. Nagle, Witt & Rollins Eng. Co., Amer. Exch. Bank Bldg., Engrs.

Tex., Edna—Jackson Co. voted $60,000 bonds to drain and gravel surface Highway 12. A. T. Gayle, c/o S. G. Sample, co. judge, engr.

Tex., Henderson — Rusk Co. had plans prepared and soon receives bids clearing, grubbing, grading and draining 6.96 mi. State Highway 43 from Cherokee Co. line toward here, involving 17,600 cu.yd. borrow and 23,312 cu.yd. roadway excav., 412.8 cu.yd. Class A concrete, 30,430 lb. reinforcing steel. About $32,500. Hess & Skinner, Southwest Life Bldg., Austin, engrs.

BIDS DESIRED

New York—Until Aug. 26, H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, improving Highways in Broome, Cortland, Chenango, Livingston, Ontario and Wayne Counties, also reconstructing highways in Albany, Hamilton, Jefferson, Monroe, Oneida, Ontario, Rensselaer, Steuben, Suffolk, Ulster and Wyoming Counties. J. C. Finch, secy.; advertised in this issue.

N. Y., Long Island City—Until Aug. 24, by M. E. Connolly, pres. Queens Boro, 68 Hunterspoint Ave., regulating, grading and paving Rockaway Blvd. from conduit to New York Ave., 4th Ward, Rockaway Bvld. from New York Ave. to Nassau Co. line, preliminary rein.-con. pavement.

Streets and Roads (Continued)

N. Y., Mamaroneck—Until Aug. 23, by Bd. Trustees constructing cement concrete sidewalks and curb on a cinder and Telford foundation, on Franklin St. L. Harding, pres.; advertised in this issue.

N. Y., New York—Until Aug. 24, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., widening and paving 32nd St. between existing and proposed curb lines from 5th Ave. to Bway.; widening, regulating and paving 33rd St. between existing and proposed curb lines from 5th Ave. to Bdway., both sheet asphalt on concrete foundation; regulating, curbing, recurbing, etc. West 225th St. (Muscoota St.) from easterly side of Bdway. to boro line, granite block on concrete foundation.

N. Y., S. I., St. George—Until Aug. 24, by C. D. Van Name, pres. Richmond Boro, Boro Hall, repaving Richmond Rd. from Vanderbilt to Clove Aves. and Van Duzer St. from St. Pauls Ave. to Stone St. and from Smith Terminal to Wright St., granite block on concrete foundation.

New Jersey—Until Aug. 31, by State Highway Comn., Broad St. Bank Bldg., Trenton, contructing Route 1, Sect. 9, Milton Ave., Rahway, to Rahway-Linden boundary line, Sect. 10, from Rahway-Linden boundary line to north of Roselle St., Roselle and Sect. 11, from north of Roselle St., Roselle, to Elizabeth City line, Union Co., all bituminous concrete Warrenite bitulithic surface on cement concrete base; Route 9, Sect. 4, through Dunellen, Middlesex Co, reinforced Portland cement concrete and granite block; Route 1, Sect. 7, through Hamilton Sq., Mercer Co., reinforced Portland cement concrete. A. L. Grover, ch. clk.; advertised in this issue.

N. J., Burlington—Until Sept. 6, by Common Council repairing 2,350 ft. concrete curb, laying 40,000 sq.ft. concrete and 8,000 sq.ft. brick and flag sidewalk on High St. H. S. Haines, 232 High St., engr. Noted Feb. 3.

N. J., Weehawken—Until Aug. 24, by Joint Council Comm. of Weehawken and West Hoboken Twps. paving and laying concrete sidewalks on 6 blocks, Palisade Ave. between Hackensack Plank Rd. and Weehawken St. bituminous concrete on concrete foundation. About $200,000. Engineer not selected.

N. J., West Hoboken—Until Aug. 25, by Hudson Co. (Jersey City) paving, building sewers, new lines and new basins in 6 blocks Hackensack Plank Rd. between Hudson Blvd. and Oregory Ave., probably granite block. About $175,000. F. J. Radigan, Court House, Jersey City, engr.

Maryland—Until Aug. 30, by State Rds. Comn., 601 Garrett Bldg., Baltimore, building two sections state highway, Contr. W-21, Washington Co., and Contr. WO-20, Worcester Co., J. N. Mackall, chn.; advertised in this issue.

Virginia—Until Aug. 25, by Assistant Highway Commissioner, Richmond, constructing 6.71 mi. State Rd. 22 between Salem and Catawba, Project 110, Roanoke Co.; 12.91 mi. State Rd. 12 between Jackson Ferry and Hillsdale, Project 111, Carroll Co.; 7.9 mi. State Rd. 12, between Galax and Woodlawn, Project 123, Carroll Co.; 4.42 mi. State Rd. 17 between Barboursville and Green Co. line, Project 135, Orange Co., all foregoing to be paved with waterbound macadam; 1.61 mi. State Rd. 11 between Norton and Big Stone Gap, Project 131, Wise Co., concrete road alternate bid concrete base and bituminous macadam penetration; topsoiling 11.4 mi. State Rd. 18 between Gladys and Brookneal, Project 147, Campbell Co. C. E. Bolling, 116 South 3rd St., Richmond, highway engr.

W. Va., Benwood—Until Aug. 27, by A. Sprouts, mayor, grading, filling and paving 3,400 sq.yd. Marshall St. About $25,000. C. C. Smith, Bates Bldg., Wheeling, engr.

N. C., Durham—Until Aug. 30, by R. W. Rigsby, city mgr., grading, draining, curbing paving from 45,000 to 70,000 sq.yd. streets. About $150,000. H. W. Kueffner, Durham, engr. Noted July 7.

S. C., Anderson—Until Aug. 25, by Anderson Co. Highway Comn., clearing, grubbing, grading and topsoiling 3.857 mi. Anderson-Greenville Rd.; topsoiling and surfacing 8.61 mi. Alfred Bridge Rd. W. A. Sanders, Anderson, engr.

S. C., Walhalla—Until Aug. 25, by comrs. Oconee Co. grading and surfacing 12 mi. road between Salem and here, involving 81,000 cu.yd. excav., 2,000 cu.yd. rock excav., and 25,000 cu.yd. top soil surfacing. J. N. Stribling, Walhalla, engr.

Alabama—Until Sept. 9, by W. S. Keller, state highway engr., grading, draining and surfacing with gravel or sand-clay 10.008 mi. road from Butler to 1 mi. west of Lisman, Choctaw Co., involving 21.5 acres clearing and grubbing, 96,703 cu. yd. common excav., 1,944 lin. ft. 15-30 in. pipe, 300 cu yd. Class A and 172 cu. yd. Class B concrete, 10,730 cu. yd. gravel or chert surfacing, 14,500 cu. yd. sand clay surfacing, etc.

Miss., Rolling Fork—Until Sept. 2, by Third Supervisors Separate Rd. Dist., Sharkey Co., gravel surfacing 3 mi. various roads, involving 39,700 ton gravel. J. E. Meed, comr.

Louisiana—Until Aug. 29, by State Bd. Engrs., Room 332, Maison Blache Bldg., New Orleans, constructing 5 mi. Camp Beauregard Grant Parish Highway, Rapides Parish. D. Buie, state highway engr.

Ohio—Until Aug. 26, by Dept. Highways and Pub. Wks. grading, building bridges and culverts and paving roads in following counties:

Fulton Co., Sect. "M" I. C. H. No. 20, 1.004 miles rein-con. cost $36,758.

Knox Co., Sect. "B-1" I. C. H. No. 337, 3.39 mi., brick, $154,386, or (state to furnish brick) $108,060.

Licking Co., Sect. "G" I. C. H. No. 337, 4.053 mi., plain concrete, $327,584.

Seneca Co., Sect. "E" I. C. H. No. 4, 3.382 mi., bituminous macadam, $131,105.

Stark Co., Sect. "C-2" I. C. H. No. 70, 0.94 mi., brick, $48,556 or (state to furnish brick), $35.368. L. C. Herrick, dir. highways.

O., Cleveland—Until Aug. 24, by city, grading, draining, curbing and paving Amesbury Ave., N. E. from Richardson to Sharp Allotments, Bosworth Rd. and Parkhurst Dr. from Lorain Ave. to West Blvd., Everett Ave. N. E. from East 78th to East 80th Sts., Filo Ave. S. E. from East 53rd to East 54th Sts., Forest Court, S. E. from East 33rd to East 34th Sts., Hyde Ave., S. W. from West 38th St. to Fulton Rd. S. W., Hyde Ave. S. W. from West 38th to West 41st Sts., Oakwood Ave., S. E. from East 71st to East 72nd Sts., Poe Ave., S. W. and West 44th Pl. from Fulton Rd. S. W. to Hodgson Ave. S. W., Shale Ave. S. E. from Woodhill Rd. S. E. to East 110th St., Superior Ave. N. E. from East 55th to East 79th Sts., Torwood Ave. S. W. from West 44th to West 43rd Sts., Vineyard Ave., S. E. from Warner Rd. S. E. to westerly city limits, East 73rd St. from Grand Ave., S. E. to Wagner Ave., S. E., East 102nd St. from Union Ave., S. E. to Gleim allotment, East 105th St. from Union Ave. S. E. to Aetna Rd. S. E., East 111th St., from Miles Ave. S. E. to Charlotte Rd., East 124th St. from point 714 ft. south of Woodland Ave. to Buckingham Ave., S. E., East 133rd St. from Cain Ave. S. E. to Beechwood Ave., S. E., East 135th St. from Kinsman Rd. S. E. to Abell Ave. S. E., West 15th Pl. from Holmden Ave. S. W. to Brainard Ave. S. W. About $150,000. R. Hoffman, City Hall, engr.

Mich., Bad Axe—Until Aug. 24, by State Highway Dept. at office Bd. Rd. Comrs. Huron Co., grading, draining and surfacing 0.994 mi. State Trunk Line Rd. 31-7, involving 11,646.6 sq.yd. concrete or bituminous concrete, 1,629 cu.yd. earth excav. F. F. Rodgers, Lansing, state highway. comr.

Mich., Bessemer—Until Aug. 25, by State Highway Dept., at office Bd. Rd. Comrs. Gogebic Co., grading, draining and surfacing 6.738 mi. State Trunk Line Rd. 12-26, involving 29,027 cu.yd. earth excav., 63,250.7 sq.yd. gravel, etc. F. F. Rogers, Lansing, state highway comr.

Mich., Ionia—Until Aug. 23, by State Highway Dept., at office Bd. Rd. Comrs. Ionia Co., grading, draining and surfacing 1,251 mi. State Trunk Line Rd. 66-3, involving 4,005 cu.yd. earth excav. and 13,798 sq.yd. concrete or bituminous concrete. F. F. Rodgers, Lansing, state highway engr.

Mich., Ontonagon—Until Aug. 26, by State Highway Dept., at office Bd. Rd. Comrs. Ontonagon Co., grading, draining and surfacing 4.893 mi. State Trunk Line Rd. 26-6 Sect. A. F. F. Rodgers, Lansing, state highway comr.

Illinois—Until Aug. 23, by Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 2.99 mi. Route 2, Sect. 1, Jackson Co., 18 ft. wide; 5.99 mi. Route 2, Sect. 7, Perry-Washington Co., 18 ft. wide; 5.14 mi. Route 2, Sect. 8, Washington Co., 18 ft. wide; 4.18 mi. Route 3, Sect. 53, Greene Co., 18 ft. wide; 7.68 mi. Route 3, Sect. 6, Cass Co., 8 ft. and 18 ft. wide; 6.7 mi. Route 4, Sect. 3, Will Co., 18 ft. wide; 7.86 mi. Route 4, Sect. 15, McLean Co., 18ft. wide; 6.1 mi. Route 5, Sect. 17, Winnebago-Stephenson Co., 18 ft. wide; 4.49 mi. Route 5, Sect. 18, Stephenson Co., 18 ft. wide; 10.59 mi. Route 5, Combination B, Winnebago-Stephenson Co., 18 ft. wide; 3.04 mi. Route 5, Sect. 3, Cook Co., 18 ft. wide; 3.96 mi. Route 5, Sect. 4, Du Page Co., 18 ft. wide; 5.16 mi. Route 5, Sect. 5, Du Page Co., 18 ft. wide; 12.16 mi. Route 5, Combination C, Cook-Du Page Co., 18 ft. wide; 3.89 mi. Route 5, Sect. 6, Du Page Co., 18 ft. wide; 2.37 mi. Route 5, Sect. 6-A, Cook Co., 18 ft. wide; 3.52 mi. Route 5, Sect. 7, Cook Co., 18 ft. wide; 9.78 mi. Route 5, Combination D, Cook Co., 18 ft. wide; 21.94 mi. Route 5, Sect. E. Cook Co., 18 ft. wide; 0.46 mi. Route 6, Sect. 7-A, De Kalb Co., two 12 ft. strips; 6.79 mi. Route 10, Sect. 10, Pratt-Macon Co., 18 ft. wide; 5.81 mi. Route 13, Sect. 1, Williamson Co., 18 and 20 ft. wide; 4.96 mi. Route 13, Sect. 5, Jackson-Williamson Co., 18 and 20 ft. wide; 10.77 mi. Route 13, Combination F, Jackson-Williamson Co., 18 ft. wide; 3.64 mi. Route 15, Sect. 2, St. Clair Co., 18 ft. wide; 4.83 mi. Route 15, Sect. 3, St. Clair-Clinton Co., 18 ft. wide; 8.47 mi. Route 15, Combination G, St. Clair-Clinton Co., 18 ft. wide; 2.16 mi. Route 15, Sect. 8, Washington Co., 18 ft. wide; 5.95 mi. Route 15, Sect. 9, Washington Co., 18 ft. wide; 4.8 mi. Route 15, Sect. 10, Washington Co., 18 ft. wide; 12.91 mi. Route 15, Combination H, Washington Co., 18 ft. wide; 6.51 mi. Route 18, Sect. 11, Kane-Du Page Co., 18 ft. wide; 6.81 mi. Route 23, Sect. 1, La Salle Co., 18 ft. wide; 3.43 mi. Route 23, Sect. 28, De Kalb Co., 18 ft. wide; 3.89 mi. Route 23, Combination I, De Kalb Co., 18 and 24 ft. wide; 7.5 mi. Route 25, Sect. 6, Clay Co., 18 ft. wide; 4.36 mi. Route 31, Sect. 7, Brown Co., 18 ft. wide; 1.11 mi. Route 37, Sect. 5, Franklin Co., 18 ft. wide; 1.08 mi. Project 9, Sect. 27, Madison Co., 18 ft. wide; 1.44 mi. Maint. Sects 35-36, Cook Co., 18 ft. wide; 0.33 mi. Maint, C, Cook Co., two 6 ft. strips; earth grading, 1.52 mi. Route 18, Sect. 13-A, Kendall Co.; 3.17 mi. Route 18, Sect. 14-A, Kendall Co.; 4.69 mi. Route 18, Combination J, Kendall Co. Alternate bids will be allowed on the following types of construction, Portland cement concrete, 4 in. monolithic brick, bituminous concrete with and without binder course. C. Older, ch. highway engr.

Minn., Gaylord—Until Aug. 26, by Sibley Co., grading and graveling 2 mi. Job 2101 State Rd. 1, involving 16,093 cu.yd. excav., 151,120 cu.yd. overhaul, 2,337 cu.yd. gravel surfacing, etc.; graveling surfacing 2 mi. Job 2102, State Rd. 7, 3,076 cu.yd. gravel; 2 mi. Job 1701, State Rd. 2, 2,400 cu.yd. gravel. About $25,000. C. N. Paterson, Gaylord, engr.

Minn., Minneapolis—Until Sept. 6, by Hennepin Co., grading and graveling 10 mi. Cedar Ave. Rd. in Dakota Co., 24 ft. wide. About $40,000. E. E. Terrell, Court House, engr.

Kan., Ottawa—Until Aug. 23, by Franklin Co., c/o D. K. Emerson, clk. constructing 1,667 mi. Project 89, 18 ft. wide, one course concrete, bituminous brick. About $25,000. M. S. Alderman, Ottawa, engr.

Kan., Wellington—Until Aug. 26, by Summer Co., hard surfacing 16,728 mi. road 32 ft. wide. Sect. 35. J. W. Mavity, Wellington, engr.

Mo, Carthage—Until Aug. 23, by city, surfacing Garrison Ave., 27 ft. wide, bituminous macadam on concrete base, cost $25,000; 4th St., 34 ft. wide, asphalt or brick on concrete base, $25,000. F. B. Newton, Carthage, engr.

Mo., Carthage—Until Aug. 25, by city, surfacing Grand Ave., 27 ft. wide, macadam on concrete base. About $30,000. F. B. Newton, Carthage, engr.

Tex., Crockett—Until Aug. 27, by N. Patton, judge Houston Co., grading, surfacing and draining 13.73 mi. State Highway 21, involving 114 acres clearing and grubbing, 31,272 cu.yd. borrow, 3,567 cu.yd. clay, 78,139 cu. yd. roadway excav., 1,496 cu.yd. 1:2:4 and 87.4 cu.yd. 1:2 1/2:5 concrete, 112,185 lb. reinforcing steel, etc. About $114,000 including 10% for engineering and contingencies. G. W. Courter Marlin, consult. engr.

Tex., Ft. Worth—Until Aug. 29, by H. L. Small, judge Tarrant Co., paving and

Streets and Roads (Continued)

curbing 6.84 mi. Kuteman Cut-Off from Parker Co. line east to Benbrook Rd., involving 71,230 sq. yd. vitr. brick and 71,198 lin. ft. concrete curbing, about $225,000; surfacing 13.36 mi. Ft. Worth-Hicks Rd., The Meridian Highway, 141,103 sq.yd. 2 in bituminous macadam, 11,759 cu.yd. broken stone, $115,000 including 10% for engineering and contingencies. **R. V. Glenn, Courthouse, consult. engr.**

Tex., Quitman—Until Aug. 29, by B. F. Cathey, judge Wood Co., gravel surfacing 14.49 mi. State Highway 37, involving 22,826 cu.yd. gravel. About $52,200. **J. E. Blair, Mineola, engr.**

Colorado—Until Aug. 24, by State Highway Comn., Denver, paving 4½ mi. Denver-Broomfield Rd., 18 ft. wide, concrete, Federal Aid Project 133, Adams Co. About $170,000. **L. D. Blauvelt, State Museum Bldg., Denver, engr.**

New Mexico—Until Aug. 30, by State Highway Comn., Capitol Bldg., Santa Fe, grading, surfacing, building culverts and bridges on 16,361 mi. Roswell-Dexter Rd., Federal Aid Project 48, Chaves Co., involving 22,955 cu. yd. excav., 25,502 cu. yd. gravel, 172.02 cu. yd. Class A and 73.42 cu. yd. Class B concrete, 3,915 lb. reinforcing bars; 11,592 mi. Colfax-Cimarron Rd., Federal Aid Project 1-D, Colfax Co., involving 30,391 cu. yd. excav., 5,923 cu. yd. gravel, 284.4 cu. yd. Class A and 139 cu. yd. Class B concrete, 20,387 lb. reinforcing bars; 6.801 mi. Mescalero-Tularosa Rd., Federal Aid Project 40, Otero Co., involving 26,452 cu. yd. excav., 7,960 cu yd. crushed stone, 326 cu. yd. Class A and 92.32 cu. yd. Class B concrete, 13,108 lb. reinforcing bars; 32,604 mi. Steins-Rodeo Rd., Federal Aid Project 54, Hidalgo Co., involving 50,479 cu. yd. excav., 12,241 cu.yd. gravel, 577.5 cu. yd. Class A and 523.4 cu. yd. Class B concrete, 18,857 lb. reinforcing bars; 4.343 mi. Hurley-Bayard Station Rd., Federal Aid Project 55, Grant Co., involving 15,257 cu. yd. excav., 6,773 cu. yd. crushed stone, 288 cu. yd. Class A and 17.78 cu. yd. Class B concrete, 16,093 lb. reinforcing bars; 20.871 mi. Tecolote-San Jose Rd., Federal Aid Project 60-B, San Miguel Co., involving 86,218 cu yd. excav., 24,366 cu. yd. crushed stone 826.85 cu. yd. Class A and 193.35 cu. yd. Class B concrete, 50,369 lb. reinforcing bars; 10.057 mi. Taos-Taos Jct. Rd., Federal Aid Project 67, Taos Co., involving 27,900 cu. yd. excav., 15,715 cu. yd. gravel, 357.14 cu. yd. Class A and 146.3 cu. yd. Class B concrete, 15,141 lb. reinforcing bars; grading and building culverts and bridges on 4.394 mi. Canjilon-Tierra Amarilla Rd., Navajo Canyon Forest Aid cooperative Project, Rio Arriba Co., involving 24,310 cu. yd. excav., 301.34 cu. yd. Class A and 57.55 cu. yd. Class B concrete, and 10,709.4 lb reinforcing bars. **L. A. Gillett, state highway engr.**

Washington—Until Aug. 30, by State Highway Comn., Olympia, clearing, grading, draining and surfacing with gravel or crushed rock 8.7 mi. Chelan-Okanogan Highway from Trinidad to Columbia River, Grant and Douglas Co., 10.2 mi. Sunset Highway, Coulee City to Hartline, Grant Co., 7 mi. Sunset Highway, Baird to Moses Coulee, Douglas Co.; clearing, grading, draining and surfacing with crushed rock 8.6 mi. Inland Empire Highway, between Asotin Co. line and Silcott, Asotin Co.; grading, draining and paving with concrete 5.4 mi. Inland Empire Highway from Waitsburg south, Walla Walla Co.; surfacing with gravel or crushed rock 12 mi. Central Washington Highway between Franklin Co. line and Lind, Adams Co., clearing, grading, draining and paving with concrete 8.3 mi. Pacific Highway, Kalama to Woodland, Cowlitz Co. constructing steel bridge over Bear River, on Ocean Beach Highway, Pacific Co. **J. Allen, state highway comr.**

Wash., Seattle—Until Aug. 29, by King Co., paving 2 mi. Permanent Highway 27 from Auburn to Pierce Co. line, 18 ft. wide, involving 10,640 cu.yd. excav. and 23,467 sq.yd. 6-8 in. concrete. About $70,000. **T. R. Beeman, 7807 Woodland Pk., engr.**

Wash., Seattle—Until Sept. 6, by King Co., clearing, grubbing and gravel surfacing 4½ mi. Maple Leaf and Extension Rd. 6, involving 33⅓ acres clearing, 22.3 acres of grubbing, 65,512 cu. yd. excav. and 7,630 cu.yd. graveling. About $100,000.

California—Until Aug. 29, by State Highway Comn., 515 Forum Bldg., Sacramento, paving 5.7 mi. concrete highway between Rancho El Encino and Shoup Ave., Los Angeles Co.; 2 mi. highway between San Jose Creek and Stony Creek, Santa Barbara Co.; 9.5 mi. concrete or asphalt concrete highway between Ignacio and Fairville, Marin and Sonoma Counties. **A. B. Fletcher, state highway engr.**

Cal., Los Angeles—Until Aug. 22, by Bd. Supervs. Santa Barbara Co., paving with concrete 28 mi. Lompoc Rd. Improvement Dist.. About $500,000.

Cal., San Diego—Until Aug. 22, by Common Council, paving 2,580 ft. Granada Ave. from Upas St. to University Ave., involving 143,411 sq.ft. 1 in. asphaltic concrete on 4 in. Portland cement concrete base, 2,132 lin. ft. curbing, and 11,034 sq.ft. Portland cement concrete sidewalks. **F. A. Rhodes, city engr.**

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

Massachusetts — State Highway Dept., Boston, received bids Aug. 9, paving 8,600 ft. highway in Littleton, 18 ft. wide, bituminous macadam, from T. J. McCue, Watertown, $47,339, Hanscom Constr. Co., 70 Kilby St., Boston, $49,314, A. Pallatto, Dracut, $51,948; 2,200 ft. in West Springfield, 20 ft. wide, concrete and bituminous macadam, from Hoyt. Constr. Co., Holyoke, $22,960, D. O'Connell's Sons, Holyoke, $22,823, Hampden Const. Co., Springfield, $23,829.

★Mass., Boston—City let contract paving Charles St. from Beacon to Cambridge Sts., wood block on concrete base, to B. E. Grant Co., 605 Barristers Hall. $38,399.

★Mass., West Springfield (Springfield P. O.)—City let contract paving 2,200 ft. Riverdale Rd., cement and bituminous concrete, to Hoyt Constr. Co., North Pleasant St., Holyoke. About $25,000. Noted Feb. 17.

★Connecticut—C. J. Bennett, state highway comr., 240 Farmington Ave., Hartford, let contract paving 1,800 ft. Nepang Rd., Torrington, 3 in. bituminous macadam on 7 in. crushed stone base; also 5,300 ft. Broad Brook—Scantic Rd., 18 ft. wide, East Windsor, 7 in. waterbound macadam, to J. DeMichael & Bros., 58 High St., Torrington, $8,500 and $30,000 repectively; 3,000 ft., Westport Rd., Wilton, 18 ft. wide, 8 in. gravel, to Osborne-Barnes Co., Odd Fellows Bldg., Danbury, $9,000. Noted July 28.

★New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, let contracts improving 5.49 mi. Whallonsburg-Essex, Highway 8063, Essex Co., to Cannova & Giordano, Lodi, N.J., $192,950; 1.72 mi. Manheims-Burrells, Highway 1602, Herkimer Co., to M. C. Tryon, Herkimer, $38,897; 0.65 mi. Harriman Village; Main St., Highway 739, Orange Co., to Schunnemunk Constr. Co., Highland Mills, $22,192; 1 mi. Clifton Park-Crescent, Part 1, Highway 8065, Saratoga Co., to J. C. Connors Co., Inc., 137 Jay St., Schenectady, $36,999; Hume Pike, Part 2 Pike Castle, Part 1, Highway 8067, Wyoming Co., to Greenfield Constr. Co., 89 Main St., Hornell, $145,698; 1.5 mi. Rd. 385, Rep. Con. 1274, Albany Co., to Veeder Contg. Co., Schenectady, $54,335; 2.26 mi. Rd. 5198, Rep. Con. 1291, Greene Co., to J. M. Walsh, 1085 East 35th St., Brooklyn, $73,618; 3.62 mi. Rd. 5273, Rep. Con. 1327 Livingston Co., to Standard Bitulithic Co., 50 Church St., New York City, $78,030; 1.53 mi. Rd. 714, Rep. Con. 1332, Livingston Co., to Dale Eng. Co., Mann Bldg., Utica, $52,208; 1 mi. Rd. 155, Rep. Con 1328, Montgomery Co., to J. P. Dugan & Co., Inc., Amsterdam, $34,653; 1.41 mi. Rd. 5208, Rep. Con. 1321, Schuyler Co., to S. K. Johnson and R. S. Wait, Norwich, $22,701.

New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, opened bids Aug. 12, improving (1) 3.72 mi. Constableville-Lyons Falls, Part 1, Highway 1600, Lewis Co., (2) 3 mi. Middleport-Medina, Part 2, Highway 8069, Olcans Co., (3) 2.68 mi. Rd. 5327, Rep. Con. 3030, Lewis Co., (4) 2 mi. Rd. 5323, Rep. Con. 3025, Yates Co., from A. Barboni, Syracuse, (1) $116,856; J. Johnson Constr. Co., 765 Abbot Rd., Buffalo, (1) $117,771; Smith Bros. Contg. Co., Watertown, (1) $118,590, (3) $66,757; Ingersoll & Gallagher, Medina, (2) $106,662; Chambers & Barnes, 315 Powers Bldg., Rochester, (2) $113,420; Dale Eng. Co., Mann Bldg., Utica, (2) $114,381; Municipal Constr. Co., Utica, (3) $65,499; A. F. McConville, Ogdensburg, (3) $65,628; Greenfield Constr Co., 89 Main St., Hornell, (4) $39,572; N. J. Balestrieri, Shelburne Falls, (4) $39,990; E. McGreevy, Elmira, (4) $41,785. Noted July 28.

N. Y., Long Island City—M. E. Connolly pres. Queens Boro, opened bids Aug 10. regulating and paving, (1) Clermont Ave., (2) 88th (Maple) Ave., sheet asphalt, (3) Manly St., (4) McPherson St., (5) Gale St.; regulating, grading and curbing, etc., (6) Edson St., (7) Linden St., (8) 93d Ave. (North St.), (9) Gates Ave., (10) Hull Ave.; regulating, curbing and laying sidewalks on (11) 88th (Maple) Ave., regulating and resetting bluestone curb, etc. on (12) Marion St.; regulating and recurbing, etc. (13) Payntar Ave., from

Borough Asphalt Paving Co., 1301 Metropolitan Ave., Brooklyn, (1) $14,902, (2) $9,239, (4) $5,509, (12) $11,591.

Sicilian Asphalt Paving Co., 41 Park Row, New York City, (1) $14,908, (12) $11,635.

Cleveland Trinidad Paving Co., Flushing, (1) $16,444, (2) $9,190, (4) $5,935.

F. J. Clancy, 460 Lockwood St., Astoria, (5) $6,295, (6) $4,365, (8) $5,381, (9) $2,060, (10) $2,635, (13) $9,625.

R. A. Hess, Inc., 14 Queens St., Astoria (6) $5,772.

Peace Bros., 20 Main St., Flushing, (5) $6,530, (6) $5,989, (8) $5,840, (10) $6,025, (11) $3,372 (13) $10,778.

H. E. Kordes Co., 2577 Cooper St., Brooklyn, $2,249, (8) $5,883, (10) $2,310, (11) $3,120, (13) $11,810.

Kennedy & Smith, Amity St., Flushing, (3) $14,750, (5) $6,287, (8) $8,072, (11) $3,430, (13) $12,885.

C. Kurth 37 Brotto Ave., Elmhurst, (7) $2,324.

C. Ranier, (7) $2,281.

W. P. McDonald Constr. Co., 618 Union St., Brooklyn, (12) $12,064.

Welsh Bros., 32 Queens St., (3) $15,498, (5) $6,151, (9) $1,995, (10) $2,653, (13) $10,410.

G. Morris, (3) $16,450.

Casalino Contg. Co., 207 North 7th St., Brooklyn, (10) $1,857.

J. J. McIntyre, (9) $2,099. Noted Aug. 4.

N. Y., New York—Dept. Parks, Municipal Bldg., opened bids Aug. 11, repaving Boston Rd. from East 182nd St. to Bronx Park East, Bronx, heavy traffic sheet aphalt and asphaltic concrete, from Asphalt Constr. Co., 2197 Madison Ave., $57,986; C. D. Beckwith, Inc., 301 West 108th St., $60,275; W. P. McDonald Constr. Co., 618 Union St., Brooklyn, $61,605.

N. Y., New York—H. Bruckner, pres., Bronx Boro, opened bids Aug. 10, regulating, grading, setting curbs, etc., on (1) Clarke Pl. from Jerome to Inwood Aves.; building sewers in (2) West Kingsbridge Rd., etc., (3) West Kingsbridge Rd. between existing sewer east of Reservoir Ave. and Reservoir Ave., etc., from C. D. Beckwith Inc., 301 West 108th St., (1) $3,290; Interborough Asphalt Co., (1) $4,175; Brusstar Constr. Co., Inc., Harlem River and 150th St., (1) $4,765; C. W. McDonald, 1910 Webster Ave., (2) $37,795; M. Delbalso, 660 East 221st St., (2) $46,297, (3) $124,069; McLaughlin & Buckley, (2) $47,863; J. L. Sigretto & Co., (3) $128,986; J. J. B. La Marsh, Inc., 1510 Appleton Ave., (3) $131,650. Noted Aug. 4.

★N. Y., Ogdensburg—City let contract paving various streets involving 14,000 sq.yd. concrete, to A. Yesue, 27 Carroll St., Binghamton, $39,947.

★N. J., Trenton—Bd. Freeholders Mercer Co. let contract paving 2 mi. Carter Rd. from Lawrenceville to point near Rosedale, waterbound macadam, to J. J. Barrett 147 Lafayette St., $156,072. Noted July 21.

★N. J., Trenton—City let contract improving Chambers St. and Princeton Ave., 4,500 ft. long, 20 ft. wide, to J. J. Barrett, 147 Lafayette Ave., $39,521.

★Pennsylvania—State Highway Dept., Harrisburg, let contract building Route 268, East Bethlehem Twp., Washington Co., to Kavanaugh-DeNire Constr. Co., 407 Mahoning Bank Bldg., Youngstown, O., $56,465. Noted Aug. 11.

★Pa., Pittsburgh—City let contract repaving East St. from Royal to Creek Sts., to Booth & Flinn, Ltd., 1942 Forbes St., $42,544. Noted August 4.

Streets and Roads (Continued)

★Virginia—State Highway Comn., 116 South 3rd St., Richmond, let contract constructing 9.77 mi. State Rd. 10 between Farmville and Prospect, Virginia Prospect 76, Prince Edward Co., 1.53 mi. concrete road and 8.24 mi. soil road, to Sanderson & Parker, Cartersville, $99.667. Noted July 21.

★W. Va., South Charleston—City let contract grading, curbing, edging and paving 6,000 lin. ft. 7th Ave. and D. St., involving 11,000 sq.yd. vitr. brick, 6,000 lin.ft. cement curbing and 4,000 lin.ft. cement edging, to Reed and Lapsley, South Charleston, $68,200.

★North Carolina—State Highway Comn., at div. office, Durham, let contract clearing, grubbing, grading, draining and paving 5.8 mi. State Project 573, Durham Co., to Hutton Eng. & Contg. Co., Savannah, Ga., $192,340. Noted July 28.

★North Carolina—State Highway Dept., at div. office, Tarboro, let contract grading and paving 9.57 mi. road between Greenville and Ayden, State Project 609, Pitt Co., to Cheatwood & Driscoll, 511 West 12th St., Richmond, Va. About $237,000.

★S. C., Orangeburg—Orangeburg Co. Highway Comn. let contract clearing, grubbing, grading and surfacing 19.88 mi. road from Orangeburg to Charleston, to J. K. Mayfield, Denmark, $64,292. Noted July 14.

★Alabama—State Highway Dept., Montgomery, let contracts grading, draining and surfacing 10.765 mi. road from Greenville to Lowndes Co. line, sand-clay, Butler Co., and 20.62 mi. road from Uriah to Monroeville, gravel, Monroe Co., to L. C. Rawlinson, Montgomery, $36,377 and $31,039 respectively. Noted Aug. 11.

Louisiana—State Highway Dept., Maison Blanche Bldg., New Orleans, opened bids Aug. 8, building (1) 5 mi. Sect. A. Leesville-Many Highway, (2) 5 mi. Leesville-Alexandria Highway, (3) 3.05 Bossier City-Coushatta Highway, Bossier Parish, (4) 5 mi. Sect. A, Leesville De Ridder Highway, (5) 5 mi. Leesville-Texas Highway, from Carr Constr. Co., Shreveport, (1) $31,358, (2) $39,239, (4) $38,381, (5) $44,210; S. A. Gano, Maison Blanche Bldg., New Orleans, (1) $32,475; Woodruff & Powers, Jackson, Miss., (1) $33,294, (2) $42,074, (4) $31,277, (5) $46,521; H. De Natton, Bossier City, (3) $7,013; W. H. Welsh, (3) $8,331; Hogstett & Co., (3) $8,343; A. D. Lambert Constr. Co., Marksville, (4) $30,638. Noted Aug. 4.

★La., Gretna—City let contract curbing and buidling 82,000 sq.yd. concrete sidewalks, to T. M. Johnson, 2323 Chestnut St., New Orleans, $304,555. Noted July 21.

★Tennessee — State Highway Dept., Nashville, let contract grading, draining and building bridges on 19.54 mi. road from Paris to Kentucky state line, Federal Aid Project 10, Henry Co., gravel, to Little & Dean, Shaw, Miss., $412,602. Noted July 21.

★O., Cleveland—Bd. Comrs. Cuyahoga Co. let contract improving Bway. 2, to Bentley Bros., 1836 Euclid Ave., $175,604; Bway. Rd. 3. to Rieley Bros., The Arcade. $159,075. Noted Aug. 11.

★O., Cleveland—City let contract grading, draining, curbing and paving Chestnut Hill Dr. to Cleveland-Trinidad Paving Co., The Arcade, $25,721. Noted June 30.

O., Cleveland—City opened bids Aug. 3, grading, draining, curbing and paving West 88th St. from Roehl Bros., West 25th St. and Clark Ave., $13,546, River Constr. Co., Schofield Bldg., $14,195; Chester Ave. from W. E. McHugh, 3855 West 44th St., $56,172, Cleveland Trinidad Paving Co., The Arcade, $57,379. Work involves 9,700 cu. yd. earth excav., 8,372 sq.yd. asphalt, 45,550 sq.ft. vitr. brick and 130,925 sq.ft. 8 and 6 in. concrete base, etc. Noted July 28.

O., Cleveland — Comrs. Cuyahoga Co. opened bids Aug. 3, improving Drake and Hunt Rds., involving 6,380 cu.yd. earth excav., 29,500 sq.yd. waterbound macadam on 4 in. concrete base, etc., from Ohio Contg. Co., Elyria, $112,140; R. E. Carey Co., West 112th St., $117,755. Noted July 21.

★O., Steubenville—Comrs. Jefferson Co. let contract paving 11,32[illegible] ft. Wharton Twp. Rd., vitr. brick, to Reagan & Lynch, Steubenville, $119,371.

★Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, let contracts to Harrington Bros., 3959 Flad Ave., St. Louis, Mo., paving 0.81 mi. Sect. 2-A Route 2, Jackson Co., $24,319, 3.7 mi. Sect. 5-A, Route 9, Woodford Co., $10,619; to New Era Constr. Co. 6548 Bosworth Ave., Chicago, 2.57 mi. Sect. 4-A, Route 9, Woodford Co., $36,481; 7.06 mi. Sect. 6-A, Route 13, Williamson Co., $41,822 5.48 mi. Sect. 7-A, Route 13, Williamson and Saline Counties, $37,772, 6.08 mi. Sect. 8-A, Route 13, Saline Co., $45,296; Nelson Bros., Jerseyville, D. 46 Sect. 57-A, Route 3, Jersey Co., $8,898, 0.25 mi. State Aid Sect. E. Calhoun Co., $3,132; Trompeter & Sons, Peru, 2.55 mi. Sect. I-1, Project 7, LaSalle Co., $62,231; C. Feiner, 6420 Wise Ave., St., Louis, Mo., 2.6 mi. Sect. 55-A, Route 3, Greene Co., $10,080; E. A. Lord Constr. Co., Monmouth, 2.11 mi. Sect. 21-A, Route 5, Stephenson Co., $11,498, 3.02 mi. Sect. 22-A, Route 5, Stephenson Co., $11,270, 2.53 mi. Sect. 23-A, Route 5, Daviess-Stephenson Counties, $10,892; W. F. Lodge, Monticello, 2.18 mi. Sect. 5-X, Route 10, Pratt and Champaign Counties, $5,252, 3.90 mi. Sect. 6-X, Route 10, Pratt Co., $10,606, 1.44 mi. Sect. 7-X, Route 10, Pratt Co., $4,306; W. S. Shockley & Sons, Fairfield, 1.27 mi. Sect. 1-A, Route 14, Perry Co., $7,314 1.61 mi. Sect. 3-A, Franklin Co., $9,670; Buis & Olsen, St. Joseph Mo., 5.67 mi. Sect. 6-A, Route 31, Brown Co., $25,960, 6.8 mi. Sect. 8-A, Route 13, Brown Co., $26,137; M. R. Deyo, 1126 West Washington St., Peoria, 1.9 mi. State Aid. Sect. H, Macoupin Co., $6,489.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids paving (1) Beacon St. (2) Dobson Ave. (3) East 83rd St. (4) Greenview Ave. (5) Higgins Ave. (6) Keating Ave. (7) Lamon Ave. (8) Leland Ave. (9) Richmond St. (10) Troy St. (11) Winona St. (12) Kilpatrick St. (13) West 63rd St. (14) Lavergne Ave. (15) Lawler Ave. (16) Lockwood Ave. (17) Morgan St. (18) Peoria St. (19) San Jose St. (20) East 76th St. (21) Cregier Ave. (22) East End Ave. (23) West 18th St. (24) West 49th Pl. (25) West 52nd St. (26) Federal St. (27) Gladys Ave. (28) Hoyne Ave. (29) West 76th St. (30) West 13th St. (31) Turner St. (32) Norwood Park Ave., curbing (33) May St., from,

White Paving Co., 17 North La Salle St., (1) $36,752, (4) $11,257, (5) $32,371, (6) $10,321, (7) $11,026, (8) $27,299, (9) $27,619, (10) $8,519, (11) $7,587, (12) $10,805, (21) $11,930, (26) $23,613, (28) $50,869.

R. F. Conway Co., 133 West Washington St., (1) $37,117, (4) $11,314, (5) $32,372, (6) $10,530, (8) $27,389, (9) $27,738, (10) $8,520, (11) $7,632, (12) $11,077, (15) $22,770, (16) $51,078, (17) $9,667, (18) $36,101, (19) $11,066, (20) $11,117, (22) $10,007, (23) $22,288, (24) $23,128, (25) $8,059, (28) $48,774, (29) $31,450, (30) $24,091.

Amer. Asphalt Paving Co., 133 West Washington St., (7) $11,115, (8) $27,904, (9) $27,853, (10) $8,618, (11) $7,711, (14) $54,079, (15) $21,587, (16) $49,691, (17) $9,922, (18) $36,298, (19) $11,531, (20) $11,034, (21) $11,481, (22) $10,117, (23) $21,921, (24) $23,250, (25) $8,101, (26) $22,276, (27) $38,435, (29) $32,153, (30) $24,366, (31) $9,240.

Standard Paving Co., 29 South La Salle St., (14) $53,901, (16) $49,863, (23) $22,231, (27) $38,584.

Commonwealth Impvt. Co., 133 West Washington St., (1) $37,233, (6) $10,440, (7) $11,339, (12) $10,917, (14) $55,990, (15) $22,493, (17) $9,692, (18) $36,731, (19) $11,402, (20) $10,988, (21) $11,337, (22) $9,985, (24) $23,634, (25) $8,335, (26) $22,563, (27) $39,473, (28) $49,693, (29) $32,695, (30) $24,747, (31) $9,265.

Calumet Coal Co., 9022 Commercial Ave., (2) $37,956, (3) $20,736.

Central Paving Co., 179 West Washington St., (2) $38,604, (3) $20,625.

J. A. McGarry & Co., 189 West Washington St., (2) $38,959.

Ryan Co., 4500 West Division St., (13) $102,485, (31) $9,200, (32) $123,434.

Ready & Callaghan Coal Co., 133 West Washington St., (13) $102,059, (32) $123,840.

J. A. Sackley Co., 133 West Washington St., (3) $20,911, (13) $103,030, (32) $123,939, (33) $29,978

W. P. Cagney, 133 West Washington St., (33) $29,353. Noted July 7.

★Ill., Joliet—City let contract paving Lime St., brick on concrete base, to J. V. McCarthy, Joliet, $25,411. Noted July 28.

★Michigan—State Highway Dept., Lansing, let contract to Remus Const. Co., Remus, grading, draining and surfacing State Trunk Line Rd. 13-20, Sects. A and C involve 15,765 cu.yd. earth excav., at $0.50 per cu.yd., 18.1 cu.yd. 1:2:4 and 22.1 cu.yd. 1:3:6 concrete, $19 and $17 respectively, 43,796 sq.yd. gravel surface, $1.05, Sect. B involves 1,869 cu.yd. earth excav., $0.60, 5.2 cu.yd. 1:2:4 concrete, $20, 5,266 sq.yd. concrete pavement, $2.89, total $71,673. Noted July 21.

★Michigan—State Highway Dept., Lansing, let contract grading, draining and surfacing 3.883 mi. State Trunk Line Rd. 90-1 Sect. A, Dickinson Co., involving 36,451 sq.yd. gravel, to M. J. Bacco, Iron Mountain, $36,618. Noted July 21.

★Michigan—State Highway Dept., Lansing, let contract to L. J. Goldberg, Traverse City, grading, draining and surfacing 7 mi. State Trunk Line Rd. 20-18, Lake Co., involving 66,858 cu.yd. earth excav., at $0.475 per cu.yd., 189.6 cu.yd. 1:2:4 and 240.9 cu.yd. 1:3:6 concrete, $16.50 and $15.50 respectively, 7,896 lb. reinforcing steel, $0.07, 66,140 sq.yd. gravel surface (base course) $0.32, etc., total $67,161; to Smith & Eesley, Plainwell, grading, draining and surfacing State Trunk Line 62-2, Cass Co., Sect. B, involving 11,819 cu.yd. earth excav., $0.65, 48.5 cu.yd. 1:2:4 concrete, $18, 35,482 sq.yd. gravel surface, $1.15, etc., total $50,551; to G. H. Kimmerle, Cassopolis, grading, draining and surfacing Sect. C, involving 4,098 cu.yd. earth excav., $0.60, 5.1 cu.yd. 1:2:4 concrete, $20, 5,604 sq.yd. gravel surface, $1, etc., total $8,293. Noted June 2.

★Mich., Big Rapids—State Highway Dept., at office Bd. Rd. Comrs. Mescota Co., let contract grading and surfacing 1.647 mi. State Trunk Line Rd. 13-30 Sects. A and B, to Vander Veen Constr. Co., 320 Briarwood Ave., Grand Rapids, $42,371. Noted July 28.

★Mich., Caro—State Highway Dept. at office Bd. Rd. Comrs. Tuscola Co., let contract to Shulz & Liken, Sebewaing, grading, draining and surfacing State Trunk Line Rd. 31-8, involving 3,770 cu.yd. earth excav., at $0.55 per cu.yd., 8.6 cu.yd. 1:2:4 concrete, $25, 10,560 lb. pavement reinforcement, $0.06, 10,720 sq.yd. concrete pavement, $2.60, etc., total $31,980. Noted July 28.

★Mich., Coldwater—State Highway Dept. at office Bd. Comrs. Branch Co., let contract grading, draining and surfacing 1.225 mi. State Trunk Line Rd. 29-3, to Kalamazoo Paving Co., Kalamazoo, $44,073. Noted July 28.

Mich., Detroit—City received bids from (a) Detroit Asphalt Paving Co., 20 McGraw Bldg., (b) Cleveland Trinidad Paving Co., 402 Hammond Bldg., shaping, grading and paving with sheet asphalt on 8 in. concrete base Cortland Ave. from 12th St. to Wabash Ave., (a) $12,728, (b) $12,519, Devereaus St. from Gilbert to alley east of Daniels Aves., (a) $14,678, (b) $15,095, Dane St. from Elmwood to Mt. Elliott Aves., (a) $29,560, (b) $30,464, Eastlawn Ave. from Mack to Canfield Aves., (a) $36,063, (b) $37,106, Fischer Ave. from Harper to Marcus Aves., (a) $38,581, (b) $39,152, Gladstone Ave. from Linwood to Lawton Aves., (a) $15,896, (b) $16,072, Hazelwood Ave. from Lawton to Dexter Blvd., (a) $32,349, (b) $32,688, Lumley Ave. from St. Stephens to Michigan Aves., (a) $28,982, (b) $29,800, Lambert Ave. from Helen to Frontenac Aves., (a) $9,189, (b) $9,522, Maxwell Ave. from Harper to Georgia Aves., (a) $29,215, (b) $29,808 Manistique Ave. from Charlevoix to Mack Aves., (a) $21,625, (b) $22,094, Quincy Ave. from Boston Blvd. to Collingwood Ave., (a) $14,721, (b) $14,925; resurfacing McGraw Ave. from Boulevard to Warren Aves., (a) $10,065, (b) $10,285, McGraw Ave. from Junction to Livernois Aves., (a) $12,810, (b) $13,090 ;surfacing Moran Ave. from Palmer to Milwaukee Aves., (a) $8,325, (b) $8,415, Palmer Ave. from McDougall to Beaufait Aves., (a) $5,180, (b) $5,236, Clairmount Ave. from Woodward to Linwood Aves., (a) $29,600, (b) $29,280, Livernois Ave. from Buchanan to Warren Aves., (a) $36,600, (b) $37,400; paving with sheet asphalt on 8 in. concrete base and Medina curbstone Grand River Ave., (a) $191,674, (b) $201,258. Noted July 7.

Mich., Detroit—Dept. Pub. Wks. opened bids July 25, from (a) Detroit Asphalt Paving Co., 20 McGraw Bldg., (b) Cleveland Trinidad Paving Co., 402 Hammond Bldg., grading shaping and paving with sheet asphalt on 8 in concrete base Canton Ave. from East Grand Blvd. to Harper Ave., (a) $35,090, (b) $35,991; Cascade Ave. from Joy Rd. to Burlingame Ave., (a) $59,345, (b) $59,538; Ford Ave. from 12th St. to Wabash Ave. (a)

Streets and Roads (Continued)

$14,188, (b) $14,021; Farnsworth Ave. from Russel to Riopelle Sts., (a) $8,635. (b) $8,781; Hillger Ave. from Goethe to Mack Aves., (a) $23,640 (b) $23,976; Hamilton Ave. from Shoemaker to Harper Aves., (a) $32 900, (b) $33,309; Kerwin Ave. from Shoemaker to Harper Aves., (a) $36,632, (b) $37,278; St. Jean Ave. from Kercheval to Goethe Aves., (a) $44,968, (b) $45,207; Tuxedo Ave. from R. R. right of way to Linwood Ave., (a) $23,306, (b) $22 957; Wilson Ave. from Longfellow Ave. to Chicago Blvd., (a) $5,746, (b) $5,676; Webb Ave. from Linwood to Dexter Aves., (a) $49,664, (b) $49,230. Noted July 21.

★**Mich., Lapeer**—State Highway Dept., at office Bd. Rd. Comrs. Lapeer Co., let contract to Sugden & Van Cleve, Vassar, grading, draining and surfacing State Trunk Line Rd. 38-5, involving 21,852 cu.yd. earth excav., at $0.243, 138 cu.yd. 1:2:4, 17.7 cu.yd. 1:2½:5 and 118.4 cu.yd. 1:3:6 concrete, $13.30, 35,788 sq.yd. gravel surface, $1.108, etc., total, $52,369. Noted July 28.

★**Mich., Menominee**—State Highway Dept. at office Bd. Rd. Comrs. Menominee Co., let contract grading, draining and surfacing State Trunk Line Rd. 15-2 Sect. C-2, to A. Carlson, Menominee, $31,280. Noted Aug. 4.

★**Mich., Ontonagon** — State Highway Dept., at office Bd. Rd. Comrs. Ontonagon Co., let contract grading, draining and surfacing 5.155 mi. State Trunk Line Rd. 68-1, Sect. A-3 and B, involving 17,399 cu.yd. earth excav. and 49,142 sq.yd. waterbound macadam, to G. Fredeen, Norway, $49,029.

★**Mich., Port Huron**—State Highway Dept., at office Bd. Rd. Comrs. St. Clair Co., let contract to Palma Constr. Co., Ypsilanti, grading, draining and surfacing 7.06 mi. State Trunk Line Rd. 21-13, Sect. B involves 3,581 cu.yd. earth excav., at $0.75 per cu.yd., 11.2 cu.yd. 1:2:4 and 43.4 cu.yd. 1:3:6 cu.yd. concrete, $20 and $19 respectively, 992 lb. reinforcing steel, $0.07, 11.775 sq.yd. concrete pavement, $2.34; Sect. E, 134 sta.yd. grading, $10, 2,687 sq. yd. concrete pavement, $2.34; Sect. F, 185 sta.yd. grading, $10, 37,059 sq.yd. concrete pavement, $2.34, total $184,405. Noted July 28.

★**Mich., Traverse City**—State Highway Dept., at office Bd. Rd. Comrs. Grand Traverse Co., let contract to H. A. Hoxie, Three Rivers, grading, draining and surfacing State Trunk Line Rd. 11-12, Sect. A, involving 7,464 cu.yd. earth excav., at $0.60 per cu.yd., 23,471 sq.yd. concrete pavement, $2.16, total $55,811. Noted July 28.

★**Ia., Albia**—Monroe Co let contract grading 5 mi. Primary Rd. 78, west and south of here, involving 111,024 cu.yd. excav., to Carey-Smith Co., Des Moines, $0.325 per cu.yd. for excav., $1.50 for loose rock and $2.25 for solid rock. Noted May 12.

★**Ia., Algona**—Kossuth Co. let following contracts grading and draining 10.98 mi. Primary Rd. Project 6, from here, west to Palo Alto Co. line, involving 76,837 cu. yd. earth excav., 71,614 lin. ft. 6 in., 6,015 ft. 8 in. and 110 ft. 12 in. tile and 42 tile intakes; excavation, to Peterson, Shirley & Gunther, Omaha, Neb., $0.395 per cu. yd.; tile material delivered to Natl. Clay Wks., Mason City, 6 in. $0.05 per ft., 8 in. $0.08675, 12 in. $0.20; tiling, labor and intakes to E. S. Camden, Armstrong, 6 in. $0.064 per ft., 8 in. $0.09, 12 in. $0.15; Type A intakes, $23, B, $20.

Ia., Boone—City received lowest bid Aug. 3 paving 42,400 sq.yd. in 8th, Allen, 7th, West 3rd and Greene Sts., from W. Horrabin Constr. Co., 15 East College St., Iowa City, sheet asphalt, $2.49 per sq.yd., aphaltic concrete, $2.44. Bid rejected. O. Hile, city clk. Noted June 30.

Ia., De Moines—City received bids paving about 10 blocks Ingersoll Ave. from West 28th to 38th Sts., sheet asphalt, from J. Horrabin & Co., 1422 Walnut St., Des Moines $2.48 per sq.yd.; Wright Constr. Co., 211 Flynn Bldg., Des Moines, $2.53; McCarthy Impvt. Co., 220½ Main St., Davenport, $2.64. Noted July 7.

★**Ia., Greenfield**—Adair Co. let following contracts grading (1) 3.28 mi. Primary Rd. Project 162, from Adair to Cass Co. line, involving 64,599 cu. yd. earth excav., (2) 4.08 mi. Sect. B, Primary Rd. Project 28, from here, north, involving 60,129 cu. yd., to C. C. Barnes Co., 343-51st St., Des Moines (1) $0.234, (2) $0.254. Noted July 14 and 21.

★**Ia., Northwood**—Worth Co. let following contracts draining Primary Rd. Project 161, from Manly to Winnebago Co. line, through Northwood to Mitchell Co. line and from Cerro Gordo Co. line, north through here to Minnesota State line, involving 185,735 ft. 6 in. tile, 7,700 ft. 8 in., and 31 intakes, to Mason City, Brick & Tile Co., Mason City, 55,617 ft. of 6 in. tile material $0.048 per ft., 48,900 ft. 6 in. $0.05, 18,328 ft. 6 in., $0.046, 62,800 ft. 6 in. $0.047, 4,800 ft. 8 in. $0.077, 1,800 ft. 8 in. $0.075, 1,100 ft. 8 in, $0.074; J. W. Fox, Clear Lake, 122,935 ft. 6 in. tile labor, $0.075 per ft., 6,700 ft. 8 in. $0.09, Type A intakes $30 each, Type B $25 each; N. C. Jensen, Carpenter, 62,800 ft. 6 in. tile labor $0.069 per ft., 1,000 ft. 8 in. $0.09, Type B intakes, $15 each.

★**Ia., Pierson**—City let contrac. grading and surfacing various streets with concrete, to J. F. Brooks, Pierson. About $25,000.

★**Minnesota**—State Highway Comn., 920 Guardian Life Bldg., St. Paul, let contract graveling 3.9 mi. State Project 41-21, to Dobbelman & Rasmussen, 4232 Colfax Ave., S., Minneapolis, $5,459; 7.5 mi. State Project 41-22, Div. A, to Dobbelman & Ramussen, 4232 Colfax Ave., S. Minneapolis, $3,306, Div. B, to Northern Road Constr. Co., Minneapolis, $16,247, graveling materials, to Medford Stone & Gravel Co., Medford, $6,852. Noted July 7.

★**Minn., Grand Rapids**—Itasca Co. let contract grading and building 27.7 mi. Babcock Highway from here to St. Louis Co. line at Keewatin, (broken stone, ready for surfacing), to H. W. Coons, 230 Center St., Hibbing, $798,634.

★**Minn., Hastings**—City let contract paving 15,000 sq.yd. 2nd and Sibley Sts., with bitulithic, to Bitulithic Contg. Co., Ltd., 601-2 Trust and Loan Bldg., Winnipeg, Man., $73,243; grading, to Truax & Winor, Hastings, $6,615. Noted July 14.

★**Minn., St. Paul**—City let contract repaving with sheet asphalt West 7th St. from Seven Corners to Tuscarora Ave., to Fielding & Shepley, 216 University Ave., $63,900. Noted July 28.

★**Minn., St. Paul**—City let contract paving about 10 blocks Maryland Ave. from Payne to Duluth Aves., with clay brick to Feyen Constr. Co., 277 Burgess St., $74,650. Noted July 21.

Minn., St. Paul—City received bid Aug. 8, paving about 12,000 sq.yd. Point Douglas Rd., from Burns Ave. to south city limits, from Hanlon & Okes, 338 Lumber Exch. Bldg., Minneapolis, $39,330. Noted Aug. 4.

★**Minn., St. Paul**—City will pave Jefferson Ave. from Snelling to Fredericks Aves., asphaltic concrete. Former bids rejected. Work will be done by force account. Noted July 21.

★**Kan., Wichita**—Sedgwick Co. let contract paving, grading and draining 5.6 mi. various roads, 18 ft. wide, bituminous-filled brick, to Stewart & Ritchie, Wichita, $286,301.

★**N. D., Fargo**—Cass Co. rejected bids opened Aug. 10, grading and surfacing Red Trail, between Cheyenne River and railroad tracks at Mapleton. Work will be done by day labor. Noted July 28.

Montana—State Highway Dept., Helena, received bids building 18 mi. Pipestone Pass Rd., south of Butte, involving 62,000 cu.yd. rock excav., 122,300 sta. yd. overhaul, 2,600 lb. reinforcing steel, 15 acres clearing, 2 acres grubbing, etc., from Heiselt Constr. Co., Salt Lake City, Utah, $86,973; Nelson & Pederson, Park and Washington Sts., Butte, $87,311; L. T. Lawler, Butte, $87,822.

Montana—State Highway Dept., Helena, received bids building Yellowstone Trail, Federal Aid Project 82, Gallatin Co., from Pioneer Constr. Co., Bozeman (bituminous macadam), $188,022; Crown Paving & Constr. Co., Helena (Portland cement), $210,903; building 18 x 198 ft. steel bridge, steel-concrete abutments, from Buell Bridge Co., Missoula, $28,217; 3 concrete bridges, from A. B. Maugey, Bozeman, $13,982. Noted July 7.

★**Mo., Monett**—City let contract surfacing 3rd and 4th Sts., bituminous macadam on concrete base, to E. L. Meek & Co., Vinita, Okla. About $40,000. Noted July 14.

★**Mo., Trenton**—Grundy Co. let contract grading and draining Project 20.53, to G. E. Sampson, Pickett Rd., R. F. D. 4, St. Joseph. About $29,826. Noted Aug. 4.

Tex., Austin—G. S. Mathews, judge, Travis Co. received bids grading, surfacing, draining and building bridges on 9.15 mi. State Highway 20, in Kimbro Rd. Dist., from L. F. McMillan & Williamson Bros., Box 379, $131,558; Rice & Winder, 1101 West 22nd St., $135,489; S. D. Carr Constr. Co., Shreveport, La., $164,152. Noted July 28.

★**Tex., Burnet**—Burnet Co. let contract gravel surfacing 10 mi. Highway 36-B, 16 ft. wide, to S. M. Bush, Menger Hotel, San Antonio, $39,781. Noted June 30.

Tex., Richmond—C. D. Meyers, judge Ft. Bend Co. received bids gravel surfacing, bituminous topping and draining 13.01 mi. Highway 36 from Rosenberg to Austin Co. line, from Haden & Austin, 727 Kress Bldg. or Box 1145, Houston, $176,013; M. M. Craven, Bellaire, $190,968. Noted August 4.

★**Tex., Rusk**—Cherokee Co. let contract surfacing 25 mi. Rd. Dist. 4, sand clay, to Smith Bros., Crockett. About $125,000. Noted July 7.

★**Tex., San Augustine**—San Augustine Co. let contract clearing, grubbing, grading, graveling and draining 21 mi. Highway 21, to D. La Rue, Palestine, $217,407. Noted Aug. 4.

★**Tex., Waxahachie**—Ellis Co. let contract gravel surfacing and grading 7.18 mi. State Highway 14, south of Ennis, to Scarborough & Smith, Cleburne, $52,185. Gravel to be furnished by county. Noted Aug. 4.

Colorado—State Highway Dept., Denver, received bids paving 4.432 mi. Federal Blvd. Rd. between Denver and Broomfield, 18 ft. wide, one course plain cement concrete, Federal Aid Project 129, Adams Co., from C. E. Madsen, Denver Athletic Club, Denver, $142,376; Peterson, Shirley & Gunther, Woodmen of World Bldg., Omaha, Neb., $142,441; J. E. Young (Rourke & Clark), 1267 South Race St., Denver, $148,747.

★**Oregon**—State Highway Comn., Salem, let contract grading 16.8 mi. highway in Lake Co., to Lake Co. Court, Lakeview, $57,715, 10.8 mi. in Lincoln Co., to A. Giebisch, Portland, $83,415; grading and macadamizing coast highway in Clatsop Co., to J. Slottie & Co., Astoria, $45,203, 2.7 mi. in Wheeler Co., to D. F. Murphy & Co., Boise, Idaho, $34,856; paving 7.8 mi. in Linn Co., to A. D. Kern, Portland, $237,131.

★**Cal., Los Angeles**—City let contract grading, asphalt paving, curbing, guttering and laying sidewalks on 3rd St. between Western and Norton Aves., involving 159 lin.ft. cement curbing, 3,098 sq.ft. concrete gutter, 124 sq.ft. cement sidewalks, and 89,222 sq.ft. grading and asphalt paving, to Fairchild-Gilmore-Wilton Co., Pacific Electric Bldg., $29,086.

Cal., Los Angeles—City received bids paving Santa Monica Blvd., from La Brea to Fairfax Ave., from E. L. Garrettson, 1216 2nd St., Santa Monica, $48,679; C. E. Frisbie, Los Angeles, $49,022; Wells & Bressler, California Bank Bldg., Santa Anna, $51,181. Noted July 28.

★**Que., Westmount**—City let contract paving 217 yd. Grosvernor, 2,035 yd. Roslyn, and 2,094 yd. Upper Lansdowne Sts. and 560 yd. Belfridge Rd., sheet asphalt, to Quinlan, Robertson & Janin, 50 Notre Dame St. W., Montreal, $75,815.

Industrial Works

PROPOSED WORK

Mass., Boston—Royal Curtain Co., 11 Summer St., having plans revised by J. A. Mastrangelo, archt., 369 Hanover St., for 1 story, 85x160 ft. factory, brick, on Hyde Park Ave. About $40,000. Noted July 21.

Mass., North Adams—Ward Bros., North Troy, N. Y., plan to build 1 or 2 story, garage, service station and vulcanizing plant on Lincoln and Center Sts., here. Private plans.

R. I., Providence—Williams & Anderson Co., 33 Broad St., plans to build large factory on block bounded by Highland Ave., North Main, 3rd and 4th Sts. Architect not selected.

Conn., New Haven—Estate of E. Malley, 902 Chapel St., having plans prepared by Westcott & Mapes, Inc., engrs. and archts.

Industrial Works (Continued)

207 Orange St., for 1 story, 90 x 100 ft., brick and rein.-con. power house on Temple St. About $150,000.

N. Y., Utica—Utica State Hospital, Marcy Div., soon receives bids building 2 story 70x110 ft. cold storage building also 1 story, 39x160 ft. kitchen building, brick and steel, concrete foundations. About $65,000 and $35,000 respectively.

Pa., Philadelphia—City plans to build and equip 2 power houses. About 1,000,000. A. Smyth, dir. city transit.

Pa., Pittsburgh—G. Finley, Kirkpatrick St. and Bedford Ave., had plans prepared by C. R. Geisler, archt., 237 4th Ave., for 2 story, 88x90 ft. brick and steel garage, rein.-con. flooring. About $40,000.

Pa., Sunbury—W. H. Leed, archt., 32 South 16th St., Phila., soon receives building 2 story, 70 x 130 ft., bakery, concrete, brick and steel, rein.-con. flooring, concrete foundation, at 249 Eckman St., for Butter Krust Baking Co., c/o B. Apple, on premises. About $150,000.

O., Cleveland—A. H. Berg, 9610 Pierpont Ave., plans to build 1 story, brick and timber garage and commercial, brick foundation, on East 93d St. and St. Clair Ave. About $40,000. Private plans.

O., Cleveland—W. F. Walker, 891 East 123d St., had plans prepared for 1 story, 46 x 80 ft., brick garage, brick foundation, at 351 East 152d St. About $40,000. Private plans.

Ill., Chicago — S. Buchsbaum & Co., 159 North State St., plans to build 6 story, 100 x 175 ft., rein.-con. factory and office on East Huron and Fairbank Sts. About $300,000. Architect not selected.

Wis., Milwaukee — Best Block Co., 1228 Humboldt Ave., opens bids about Aug. 22, building 1st unit of factory, 1 story, 50 x 60 ft., concrete foundation. About $40,000. J. Menge, 296 West Water St., archt.

Ia., Eldora—T. Larson, having plans prepared by W. L. Pedicord, archt., Iowa Falls, for 1 story, 64 x 128 ft. brick and tile garage. About $40,000.

BIDS DESIRED

Conn., New Haven—Brown & Von Beren, archts., 185 Church St., receiving bids building 1 story, 60 x 140 ft. brick and steel garage and service station, rein.-con. flooring, concrete foundation, on George St., for W. E. Malley, 305 St. Ronan St.

Conn., New Haven—Nat., Folding Box & Paper Co., James St., receiving bids building 62 x 142 ft. factory, 55 ft. high, on James St. About $150,000. Westcott & Mapes, 207 Orange St., archts. and engrs.

N. Y., New York—R. H. Macy & Co., 34th St. and Bway., soon lets contract building 8 story, brick, steel and concrete factory, rein.-con. flooring, concrete foundation, on 35th St. and 11th Ave. About $300,000. R. D. Kohn, 56 West 45th St., archt. and engr.

Pa., Harrisburg—Until Sept. 7, at office of T. W. Templeton, supt. Pub. Grounds & Bldgs., constructing garage. C. A. Keyworth, Capitol Bldg., archt.; advertised in this issue.

Pa., Phila.—Brighton Worsted Co., Tioga and D Sts., receiving bids building 3 story, 32 x 55 ft. spinning factory. About $70,000. Private plans. Noted August 11.

Pa., Pittsburgh—Kingan Provision Co., c/o S. F. Heckert, Bessemer Bldg., and F. T. Lewis, 2816 North Delaware St., Indianapolis, Ind., associated archts., receiving bids constructing 4 story, 48x100 ft. plant, concrete, brick and steel, rein.-con. flooring, at 112 Pennsylvania Ave. Cost between $90,000 and $100,000.

Ill., Chicago — W. C. Bennett, archt. c/o Yellow Cab Co., 57 East 21st St., receiving bids building 1 story, 140x250 ft., brick and concrete garage, on Flourmor and Lavergne Sts. About $100,000.

Ill., Chicago—Schmidt, Garden & Marvin, archts., 104 South Michigan Ave., receiving bids building 4 story, 54 x 72 ft., brick, concrete and stone factory, at 1743 Larrabee St., for Hetzel & Co., 739 Larrabee St. About $85,000.

Ill., Chicago—B. H. Stephens, archt., 37 West Van Buren St., receiving bids building 1 story, 208 x 230 ft., brick factory, Lake and Albany Aves., for G. A. Ball Bearing Co., 3051 West Lake St. About $65,000.

Wis., Milwaukee—Until Aug. 23, by Klug & Smith, archts. and engrs., 69 Wisconsin St., building 1 and 2 story, 136 x 140 ft., brick, concrete and steel garage, rein.-con. flooring, concrete foundation, on South Pierce and Clinton Sts., for Milwaukee Western Fuel Co., 120 Wisconsin St. Cost between $90,000 and $100,000. Noted July 7.

Mo., St. Louis—Until Aug. 23, by Klipstein & Rathman, archts., Chemical Bldg., constructing 1 story, 107 x 132 ft. enameling plant, brick and steel, on Bway. and Madison St., for Standard Stamping Co., c/o G. Wiegand, 2000 North Bway. About $50,000.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Mass., Malden—Revere Knitting Mills let contract building 2 story, 50 x 100 ft., concrete and brick factory; concrete foundation, on Eastern Ave., to Hub Constr. Co., 34 School St., Boston. About $50,000.

★Mass., New Bedford—J. B. Ashley, 366 Union St., let contract building 1 story, 60 x 200 ft. garage and service station, brick and cement, rein.-con. flooring, concrete foundation, on Mill St., to J. W. Bishop Co., Times Bldg., New Bedford. About $40,000.

★R. I., Woonsocket—Shambow Shuttle Co., 583 Main St., let contract building 3 story, 84 x 158 ft., brick and timber factory, concrete foundation, on North Main St., to Eastern Constr. Co., 660 Winter St. About $125,000.

★N. J., Camden—Wilson Motor Co., 1721 Haddon Ave., let contract building 1 story, 60 x 200 ft. brick plant, to J. M. Yardley, 1716 Sansom St., Phila. About $40,000.

★N. J., Woodstown—South Jersey Farmers Exch. will build 1 story fertilizer plant and warehouse, brick and steel, along railroad tracks. About $50,000. Work will be done by day labor. Private plans.

★O., Cleveland—Bryant Auto Co., 3191 West 25th St., let contract building 3 story, 80 x 180 ft., brick and concrete garage, rein.-con. flooring, brick foundation, on West 25th St. near Clark Ave., to Bolton-Pratt Constr. Co., Columbia Bldg. About $150,000. Noted July 28.

★O., Cleveland—Cretney Co., 14453 Euclid Ave., let cotract building 2 story 70x128 ft., brick and steel garage, on Euclid and Eastham Aves., to J. E. Christian Co., 1307 St. Clair Ave. About $50,000. Noted Dec. 23.

★O., Cleveland—Ohio Provision Co., 6201 Walworth Ave., let contract building 2 story, 45 x 101 ft., brick, steel and concrete factory, rein.-con. flooring, brick and concrete foundation, to W. I. Thompson & Son Co., 5103 Euclid Ave. About $40,000.

★O., Columbus—Columbus Show Case Co., 423 North Grant Ave., let contract building 1, 2 and 3 story, 53x84 ft. brick and concrete addition to factory, to E. K. Hibbs, 8 East Long St. About $40,000.

★Ill., Blue Island—Amer. Fire Fabric Co., c/o C. K. Anderson, pres., 2085 La Salle St., Chicago, let contract building 1 story, 100 x 184 ft., brick and steel warehouse and factory, on 136th St. and Western Ave., to A. and E. Anderson, 195 La Salle St., Chicago. About $150,000.

★Ill., Chicago—E. W. Bredemeier & Co., 213 North Morgan St., let contract building 3 story, 125 x 132 ft., rein.-con. and brick printing plant, at 314-20 South Honore St., to R. C. Weiboldt, 1534 West Van Buren St. About $250,000.

★Ill., Chicago—A. M. Castle & Co., 715 North Morgan St., let contract building 1 and 2 story, 210 x 230 ft., brick and steel warehouse, at 715 North Morgan St., to B. W. Constr. Co., 10 South La Salle St. About $150,000. Noted April 7.

★Ill., Chicago — H. T. McFarlane, 532 South Canal St., let contract building 6 story, 115 x 116 ft., rein.-con. factory, on Green and Van Buren Sts., to Adams Constr. Co., 217 Clarkson St. About $400,000.

★Ill., Chicago—Seventh St. Bldg. Corp., c/o W. Jordan, 110 South Dearborn St., let contract building 1 story, 112 x 165 ft., brick and concrete garage, at 704 South Wabash St., to Hennessy Bros. & Co., 810 South Dearborn St. About $60,000.

★Ill., Chicago—Sewell Clapp Envelope Co., 23 Desplaines St., let contract building 1 and 2 story, rein.-con. and brick printing plant, on Belmont and Tripp Sts., to R. C. Weiboldt, 1534 West Van Buren Ave. About $250,000. Noted Mar. 10.

★Que., Montreal—Grand Central Park, Ltd., 169 St. James St., let contract building 5 story, 45x150 ft. rein.-con. and brick factory, on Jurors and St. George Sts., to M. F. Byers, Ltd., 340 University St. About $200,000.

Buildings

PROPOSED WORK

Conn., Meriden—Hospital — City Hospital, Cook Ave., having plans prepared by C. S. Palmer, archt., 114 Whitney Ave., New Haven, for 3 story, brick, steel and rein.-con. addition. About $300,000. Noted Dec. 16, 1920.

Conn., Middletown—Laboratory — Wesleyan University, 374 High St., plans to build 2 story, 100 x 160 ft., brownstone and rein.-con., on campus. About $300,000. H. Bacon, 101 Park Ave., New York City, archt.

Conn., New Britain—School and Dormitory—State Bd. Educ. Hartford, having plans prepared by Guilbert & Betelle, archts., 2 Lombardi St., Newark, N. J., for 2 and 3 story, at State Normal School, on Camp St., here. About $1,000,000.

Conn., New Haven — Dormitory and School—Apostolic Sisters of the Sacred Heart, Prince St., plans to build 3 story, brick and rein.-con. addition on Grand St. About $150,000. Architect not selected.

Conn., Waterbury—School and Hall—St. Francis Xavier Church, 625 Baldwin St., plans to build 2 story, brick, steel and concrete, on Baldwin St. About $150,000. Architect not announced.

N. Y., Bay Shore—Hospital—Southside Hospital having plans prepared by York & Sawyer, archts., 50 East 41st St., New York City, for brick, steel and stone, concrete foundation. About $200,000. F. Sutton, 140 Cedar St., New York City, engr.

N. Y., New York—Apartment—D. S. Lang, archt. and engr., 110 West 34th St., prepared plans for 5 story, 90 x 100 ft., brick and steel, concrete foundation, on Valentine and Briggs Aves., Bronx. About $300,000. Owner's name withheld.

N. J., Atlantic City — Hotel — Rankin, Kellogg & Crane, archts., 1012 Walnut St., Phila., receives bids about Oct. 1, building 13 story, rein.-con., brick and steel addition, rein.-con. flooring, rock foundation, on North Carolina Ave. and Beach for Leeds & Lippincott. About $2,000,000. Noted Jan. 20.

Pa., Phila.—Bank and Office Bldg. Mills & Van Kirk, archts., Harrison Bldg., soon lets contract building 3 story, 19 x 101 ft., steel, stone and brick, on Broad and Dickerson Sts., for Sons of Italy State Bank, 7th and Christian Sts. About $160,000. Noted Aug. 11.

Va., Roanoke—High School—City having preliminary plans prepared by H. C. Richard, archt., 2006 Green St., Phila., Pa., for 3 story, brick and cut stone. About $500,000.

W. Va., Logan—High School—Bd. Educ. opens bids about Aug. 30, building 120x140 ft. About $300,000. R. M. Bates, Jr., 1st Natl. Bank Bldg., Huntington, archt.

N. C., High Point—Bank—J. E. Cox plans to build 7 story, 50 x 115 ft., probably brick. About $200,000.

Fla., Tallahassee—Capitol—State Bd. Institutions opens bids early in October building two 3 story, 50x100 ft. wings, concrete and brick. About $250,000. Noted Aug 11.

Fla., Tampa—Bank and Office—Exchange Natl. Bank, 601 Franklin St., plans to build 8-15 story, rein.-con., steel, brick, marble and terra cotta, rein.-con. flooring, concrete and rock foundation, on Franklin St. Cost between $250,000 and $500,000. A. C. Clewis, Boulevard St., Pres. Architect not selected.

Buildings (Continued)

La., Baton Rouge—Hotel—A. Glassell, Shreveport, plans to build hotel on Lafayette and Convention Sts., here. About $600,000.

La., New Orleans—Stores, etc.—L. Jacobs & A. D. Danzinger, 802 Perdido St. plan to build 7 stores, 4 or 5 stories high, 120 ft. on North Rampart St., 120 ft. on Basin St. and 128 ft. on Canal St. About $250,000. Roof garden will be constructed on top of stores, about $50,000.

Ky., Ashland—Bank and Office—Ashland Natl. Bank plans to build 11 story bank and office. About $250,000.

Ky., Ashland—Temple—Ancient Free & Accepted Masons plans to build 6 story temple. About $250,000.

O., Alliance—Commercial and Club—F. O. E. 224 soon lets contract building 3 story, 46 x 110 ft., brick steel and concrete, rein.-con. flooring, brick and concrete foundation. About $175,000. Albrecht, Wilhelm & Kelly, 1836 Euclid Ave., Cleveland, archts. Noted July 28.

O., Bedford—Church and School—Cleveland Catholic Diocese, c/o J. R. Hayes, pastor, 1017 Superior Ave., plans to build 1 and 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $200,000. Archtitect not selected.

O., Canton—Bank and Office—First Savings & Loan and Dollar Loan & Savings Companies plan to build 5 story, on Court and Tuscarawas Sts. W. About $300,000. Address E. E. Mack, c/o Dollar Loan & Savings Co., 312 Market Ave., S.

O., Cleveland—Apartment—T. Horobin, 2859 Eaton Rd., having lans prepared by Whitworth & Johnston, archts., 413 Engineers' Bldg., for 4-story, 200 x 250-ft. concrete and brick, rein.-con. flooring, brick foundation, on Shaker Blvd. near East 128th St. About $350,000.

O., Westerville—High School—City defeated $205,000 bonds to build high school and $20,000 bonds to repair present building. Noted July 28.

Ind., Lafayette—Hospital—St. Elizabeth Hospital, 14th and Hartford Sts., having plans prepared by D. X. Murphy & Son, archts., Louisville Trust Bldg., Louisville, Ky., for 4-story, 44 x 115 ft., brick addition, rein.-con. flooring. About $225,000.

Mich., Birmingham—Hotel and Theatre—Birmingham Hotel & Amusement Co. c/o M. H. Finkel, archt., 333 Majestic Bldg., Detroit, having plans prepared for 4 story, 60x150 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Woodward Ave. About $200,000.

Mich., Detroit—Theatre—C. W. Brandt, archt., 1114 Kresge Bldg., preparing plans for 2 story 115x135 ft., rein.-con., brick, stone and steel, rein.-con. flooring, concrete foundation. About $150,000. Owner's name withheld.

Mich., Lansing—Mausoleum—Peninsular Mausoleum Co. having plans prepared by S. Lovell, archt., 30 North Michigan St., for 1 story, 60x130 ft. marble. About $300,000.

Mich., Traverse City—Hotel—E. L. Sheers & Co., 10 South La Salle St., Chicago, having plans prepared by W. W. Ahlschlager, archt., 65 East Huron St., Chicago, for 3 story, 60 x 95 ft., rein.-con. and brick. About $150,000.

Ill., Champaign — Horticultural — Illinois State University having plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., Chicago, for 2 story, rein.-con. and brick. About $200,000.

Ill., Chicago—Apartment—Levy & Klein, archts., 111 West Washington St., preparing plans for 3 story, 125 x 153 ft., concrete and brick on Fargo Ave. and Sheridan Rd. About $175,000. Owner's name withheld.

Ill., Chicago—Bank—Bowmanville Natl. Bank, 4800 North Western Ave., having plans prepared by W. G. Uffendell, archt., 39 South State St., building 3 story, 75 x 110 brick and stone, on Western and Lawrence Aves. About $250,000.

Ill., Chicago—Club—Chicago Yacht Club, Monroe and Lake Shore Sts., had plans prepared by A. M. Rebori, archt., 410 South Michigan Ave., 2 story, 60 x 80 ft., rein.-con., brick and stone, in Lincoln Park. About $250,000. Noted Dec. 9.

Ill., Chicago—Hotel—Parkdale Hotel, c/o O. F. Mateer, 105 North Clark St., having revised plans prepared by Ronneberg, Pierce & Bauber, archts., 10 South La Salle St., and soon receives bids building 3 story, 65 x 110 ft., brick and stone, on Sedgwick and Garfield Sts. About $150,000.

Ill., Chicago — Stadium — South Park Comrs., c/o C. L. Hutchinson, 57th St. and Cottage Grove Ave., had plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., building stone, marble and concrete, seating capacity 100,000, on Roosevelt Rd. and Lake Front. About $1,500,000.

Ill., Chicago — Store and Office — Home Bank & Trust Co. (Owner's agents), Ashland and Milwaukee Aves., plans to build 6 story, 72 x 130 ft., rein.-con. and brick, at 1309 South Michigan Ave. About $250,000. Owner's name withheld. Architect not selected.

Ill., Chicago—See "Industrial Works."

Ill., Evanston—Museum and Library—Garrett Biblical Institute, c/o C. M. Stuart, Memorial Hall, having plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., Chicago, for 2-story, rein.-con., brick and stone. About $600,000.

Ill., Quincy — Lodge — Elks Lodge 100, c/o G. Levi, plans to build 3 story, rein.-con., brick, steel and stone. About $360, 000. Architect not selected.

Ill., Taylorville—School—Bd. Educ., c/o J. F. Henson, clk., plans to build brick and stone. About $150,000. Architect not selected.

Wis., DePere—High School—School Bd. having plans prepared by Foeller, Schober & Stephenson, archts., Green Bay, for 2 story, rein.-con. and brick, rein.-con. flooring, concrete and brick foundation. Cost between $150,000 and $200,000.

Wis., Dousman—Home—Masonic Home Assn., c/o A. Matheson, Chn., 624 St. Lawrence Ave., Janesville, having plans prepared by A. D. Koch, archt., 120 Wisconsin St., Milwaukee, and receives bids in fall, building 2 story, 100x200 ft., brick and concrete here. About $250,000.

Wis., Kenosha—Apartment—H. R. Gordon, 274 Lake Ave., having revised plans prepared by F. O. DeMoney, archt., 5 North La Salle St., Chicago, for 3 story, 90 x 195 ft., brick and stone. About $200,000.

Neb., Lincoln—High School—Bd. Educ. having plans prepared by Fiske & Meginnis, archts., Bankers Lift Bldg., for 3 story, 168 x 258 ft., rein.-con., brick, stone and terra cotta, 23d and Vine Sts. About $750,000. J. G. Ludlam, secy.

Mo., Columbia—Club—Order of Masonic Lodges c/o H. H. Kempster, having plans prepared by H. S. Hill, archt., Miller Bldg., for 2-story, brick, semi-fireproof construction. About $225,000. Noted April 28.

Mo., Columbia—Hospital—State Hospital Comn., Jefferson City, plans to build 3 story, brick, here. About $250,000. Architect not selected.

Mo., Columbia—Student Servcie—Men's Club of Episcopal Church, c/o W. L. George, pastor, having plans prepared by H. S. Hill, archt., Miller Bldg., for 3 story, 52 x 145 ft., brick and stone. About $150,000. Noted July 14.

Mo., St. Louis—Stores—F. L. Cornwall and S. Hamburg, Jr., La Salle Bldg., having plans prepared by W. S. Frank, archt., Century Bldg., for 2 story, 75 x 100 ft., brick and rein.-con., on Delmar Blvd. west of Clara Ave. About $180,000.

Mo., St. Louis—Stores—S. Hamburg, Jr., La Salle Bldg., having plans prepared by J. T. Craven, archt., Century Bldg., for 2 story, 75 x 113 ft., rein.-con., brick and steel, on De Balivier and Waterman Aves. About $150,000.

Tex., Ft. Worth — Church, c/o L. W. Eaton, 1515 Lipscomb St., having plans prepared by C. Allen, archt., 209½ West 8th St., for 2 story, rein.-con. and hollow tile. About $150,000.

Tex., Houston—Church and Office Bldg.—First Baptist Church, c/o R. J. Cummins, engr., 203 Stewart Bldg., having plans prepared by C. D. Hill & Co., archts., Sumpter Bldg., Dallas, for 2 story, brick and steel, concrete foundation. $1,000,000.

Que., Montreal—Hospital—A. Harwood, supt. St. Justine Hospital, St. Denis St., soon receives bids building 5 story, 55x114 ft., brick and steel, concrete foundation. About $220,000. J. Lamarre, c/o owner, Archt.

BIDS DESIRED

Mass., Blanford—Hall and School—Until Sept. 1, by Dr. Dean Memorial Comn. c/o M. B. Harding, archt., 33 Elm St., Westfield, building 2 story, 60 x 142 ft., brick and steel, concrete foundation, on the Common. Noted July 21.

Mass., Hull—Fire and Police Station—Until Aug. 22 by Town Bldg. Comn., building 3 story, 52 x119 ft. and 1 story, 58 x 88 ft., brick and stone, rein.-con. flooring, concrete foundation, on Atlantic Ave. About $150,000. P. Varney, Lynn, archt.

Mass., Malden (Boston P. O.) Court House—Until Aug. 30 by Comrs. Middlesex Co., (Cambridge), building 1 and 2 story, 92 x 116 ft., steel, granite and brick, here. About $225,000. C. R. Greco, 8 Beacon St., Boston, archt. Noted June 9.

Conn., Hartford—Hospital—C. J. Malmfeldt, archt., 206 Trumbull St., receiving bids building 7 story, 50 x 160 ft., brick, steel and rein-con. addition, rein-con. flooring, concrete foundation, for Hartford Hospital, 20 Hudson St. About $500,000. Noted June 16.

N. J., Kearny (Arlington P. O.)—High School—Until Sept. 16, by Bd. Educ., Town Hall, building 2-story, 175 x 250 ft. Guilbert & Betelle, 546 Broad St., Newark, archts; advertised in this issue. Noted Aug. 4.

Pa., Johnstown—Theatre and Hall-R. and J. Farkus, Fairfield Ave., receiving bids building 2 story, 44 x 123 ft., concrete, brick and steel, rein.-con. flooring. About $150,000. M. Nirdlinger, Empire Bldg., Pittsburgh, archt.

Pa., Mahanoy City —Bank Bldg.—Until Sept. 1, by B. R. Steven, archt., 1737 Filbert St., Phila., building 1 story, 25 x 125 ft., steel and stone, on Center and Main St. for Union Natl. Bank. About $150,000. Noted July 28.

Pa., Phila.—Stations—Until Aug. 30, by F. H. Craven, dir., Dept. of City Transit, constructing 2 elevated railroad stations on Kensington and Huntington Sts., brick, terra cotta, tile and marble, about $100,000; also station platforms at Hunting St., involving 140,000 lb. structural steel, 1,000 lb. steel reinforcing rods, 1,000 lb. miscellaneous iron castings, etc., about $50,000. H. H. Quimby, 1211 Chestnut St., engr.

Pa., Pittsburgh—Store—J. Horne Co., Pennsylvania Ave. and 5th St., receiving bids building 7 story, 120 x 200 ft., concrete brick and steel addition, rein.-con. flooring, on Pennsylvania Ave. Cost between $1,500,000 and $2,000,000. B. Jansenn, Century Bldg., archt.

Pa., Upper Darby—School—Until Sept. 1, by School Directors building 2 story, 58 x 144 ft., stone, rock foundation, on Drexel Hill. About $150,000. H. W. Castor, 1104 Stephen Girard Bldg., archt.

W. Va., Cairo—High School—Until Aug. 23, by Bd. Educ., building 3 story, brick and stone. About $150,000.

Miss., Magee—Infirmary, etc.—Until Aug. 27, by State, c/o T. C. Link, dir. Pub. Wks., P. O. Box 636, Jackson, constructing, nurses home, white infirmary, negro infirmary, service, and recreation buildings, power house and laundry room, at tuberculosis sanitarium here. Former bids rejected.

O., Cleveland—Commercial—W. S. Ferguson Co., archts., 1900 Euclid Ave., receiving bids building 2 story, brick and steel, brick foundation, on East 69th St. and Euclid Ave., for Templar Realty Co., Natl. Bldg. About $150,000. Noted July 28.

O., Niles—Theatre and Office—Simons, Brittain & English, archts., Magee Bldg., Pittsburgh, receiving bids building 1, 2 and 3 story, 63 x 178 ft., concrete, brick and steel, rein-con. flooring, here, for McKinley Theatre Co., Niles. About $150,000.

O., Struthers—High School—Until Aug. 29, by Bd. Educ. building 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $300,000. Miller & Son, 408 Dollar Bank Bldg., Youngstown, archts.

Mich. Detroit—Apartment—Until Sept. 1, by H. T. Miller, archt., 320 Lightner Bldg., constructing 4 story, 65 x 170 ft., rein.-con., brick and steel, concrete foundation. About $150,000. Owners name withheld.

Mich., Detroit—Police Station and Armory—Until Sept. 1, by J. Inches, Police Comr., Bates and Farmer Sts., building 9 story, 117x172 ft. station and 3 story,

Buildings **(Continued)**

99x168 ft. armory, rein.-con., brick, steel and stone, on St. Antoine St. A. Kahn, 1000 Marquette Bldg., archt.

Mich., Detroit—School—Until Aug. 22, by C. A. Gadd, business mgr. Bd. Educ., 1354 Bway., building 2 story, 71x115 ft. and 71x100 ft., rein.-con., steel and brick additions, rein.-con. flooring, concrete foundations, on West Grand Blvd. and Georgia Ave. About $200,000. Malcolmson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Mich., Detroit—Store and Office—Until Aug. 25, by C. F. Barnes, archt., West Adams Ave., building 2 story, 60x300 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Grand River Ave., for Tireman Bros., c/o architect. About $150,000.

Mich., Fraser—Church—Until Aug. 23, by W. C. Rein, secy. Evangelist Lutheran Church, building 2 story, brick and steel, concrete foundation. About $150,000. McFarlane, Maul & Lenz, 1259 Book Bldg., Detroit, archts.

Ill., Chicago — Apartment — E. E. Hall, archt., 123 West Madison St., Chicago, receiving bids building 6 story, 85 x 150 ft., rein.-con. and brick, on Kenmore and Balmoral Aves., for S. J. Schaeffer, 155 North Clark St. About $600,000. Noted June 3.

Ill., Chicago—Nurses Home—M. J. Sturm, archt., 116 South Michigan Ave., receiving bids building 4 story, 95 x 145 ft. rein.-con. and brick, on Sedgewick and Garfield Aves., for Augustanna Hospital Assn., 2043 Cleveland Ave. About $300,000.

Ill., Chicago—Store and Loft—Levy & Klein, archts., 111 West Washington St., receiving bids building 2 story, 150 x 105 ft., brick and concrete, on 61st and Halsted Sts., for E. Sidder, 6242 South Halsted St. About $100,000.

Wis., Milwaukee—Temple—Until Aug. 25, by R. E. Oberst., archt., 307 Grand Ave., building 1 story, 95 x 115 ft., brick and concrete, rein.-con. flooring, concrete foundation, for Excelsior Lodge, 110 Reed St. About $150,000. G. Waetjen, chn.

Ia., Des Moines—Deaconess Home—Until Aug. 23, by Proudfoot, Bird & Rawson, archts., Hubbell Bldg., constructing 4 story, 60 x 128 ft., brick and stone, on 9th and Pleasant Sts., for Womens Home Missionary Society, c/o A. E. Grigfith, 1341 Jefferson St. About $150,000.

Ia., Fairfield—Church—Until Aug. 30, by G. A. Carpenter, archt., Liggett Bldg., constructing 3 story, 66 x 132 ft. brick, steel and concrete, for Methodist Church Congregation, c/o C. L. Tennant. About $150,000. Noted July 28.

Minn., Mankato — Junior High School — Until Sept. 6, by Bd. Educ., building Lincoln Junior High School, 3 story, 168 x 224 ft., rein.-con., brick and tile. About $350,000. G. Pass & Son, Mankato, archts. Noted June 2.

Neb., Fremont—Church—Until Aug. 23, by Methodist Episcopal Church and W. C. Jones, archt., 30 North Michigan St., Chicago, building 2 story, 60 x 115 ft., brick, stone and terra cotta. About $150,000. E. D. Hull, pastor.

Col., Denver—Armories—Until Sept. 1. by State Adjutant General, building 11 armories, each 2 story, brick, concrete foundations, at Sterling, Manzanola, Canon City, Delta, Craig, Ft. Morgan, Fruita, Lamar, Brush, Brighton and Monte Vista. About $300,000. A Young, c/o Natl. Guard, State House, archt.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★N. H., Berlin — High School — City let contract building 8 story, 152 x 168 ft., brick, rein.-con. flooring, concrete foundation, here, to F. A. Rumery, 21 Portland St., Me., $265,133. Noted July 21.

★Mass., Belchertown—Dormitory and Custodial—State Dept. Mental Diseases, 109 Statehouse, Boston, let contract constructing 3 story, 33 x 89 ft. custodial building with 33 x 84 ft. and 21 x 33 ft. wings, also 3 story 33 x 90 ft. dormitory, with two wings, 20 x 40 ft. here, to D. Hanos, 575 Main St., Springfield, $182,841. Noted July 14.

★Mass., Boston—Hospital—City let contract building 4 story, 43 x 142 ft., brick and stone addition, to Thorndike Memorial Hospital, rein.-con. flooring, brick foundation, on Harrison Ave., to J. Bowen Co., 184 Dudley St. About $313,000. Noted July 28.

★Mass., Boston—Office—Trustees of India Bldg., c/o W. C. Appleton and F. Stearns, archts., 53 State St., let contract building 11 story, concrete, brick and steel addition, concrete foundation, on State St., to W. A. and H. A. Root, 1 Beacon St. About $125,000. Noted Apr. 14.

Mass., Boston — School — School Comn. received bids Aug. 12. building Lewis School, 2 story, 80x117 ft., brick, on Walnut Ave., from J. Bowen Co., 184 Dudley St., $171,500; T. O'Connor & Co., Cambridge, $173,492; Walsh Bros., Cambridge, $180,000. Noted Jan. 6.

★Mass., Worcester—Mercantile-Sawyer Associates, 66 Lincoln St., let contract building 3 story, 70 x 99 ft., steel, limestone and granite, concrete foundation, on Main and Federal Sts., to Keefe Bros., Clark Bldg. About $150,000. Noted July 14.

R. I., Providence—Business—W. T. Grant Co., 30 West 23rd St., New York City let contract building 3 story, (ultimately 7 story) 40 x 185 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Westminster and Matthewson Sts., here, to Interstate Constr. Co., 334 Westminster St. About $175,000.

★Conn., Meriden—Church—First Church of Christ Scientist, 658 Colony St., let contract building 1 story, 40 x 100 ft., brick and steel, brick and concrete foundation, at Bradley Park, to H. Wales Lines Co., 134 State St., Meriden. Noted June 30.

N. Y., Buffalo—Hotel—Hotel Statler Co., Washington St., will build 17 story, 84 x 130 x 279 x 292 x 348 ft., brick, steel and limestone, concrete foundation, on Delaware Ave. and Niagara Sq., etc. About $5,500,000. Work will be done by separate contracts. G. B. Post, 101 Park Ave., New York City, archt. and engr. Noted April 21.

★N. Y., New York—Apartment—Mt. Hope Holding Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, brick, steel and stone, concrete foundation, on 177th St. and Walton Ave., Bronx. About $250,000. Work will be done by day labor.

★N. Y., New York—Church and Settlement House—Unitarian Church, 500 2d Ave., Pelham, let contract building 3 story, brick, steel and stone, concrete fuondation, at 244 Cathedral Parkway, here, to Burke Bros. Constr. Co., 1480 Bway. About $500,000.

★N. Y., New York—Educational-Amer. Academy of Arts & Letters, Inc., c/o McKim, Mead & White, archts. and engrs., 101 Park Ave., let contract building 3 story, 83 x 100 ft., brick, steel and stone, concrete foundation, at 629 West 155th St., to Hegeman-Harris Co., 185 Madison Ave. About $300,000. Noted July 21.

★N. Y., New York—Exchange—New York Telephone Co., 15 Dey St., let contract altering present 6 story building and constructing 6 story, 100x140 ft. side addition, brick, stone and steel, on Convent Ave. and 14th St., to I. S. Rossell, 1 Madison Ave. About $300,000.

N. Y., S. I. St. George—Station House and Prison—Police Dept., City Hall, New York City, opened bids Aug 15, building new station house and prison for 66th Police Precinct, on northwestern corner formed by intersection of Richmond Terrace and Walls St., here, from Anderson & Wheeler, 1571 Richmond Terrace Port Richmond, $237,885, $262,885; Burke Bros. Constr. Co., 1476 Bway., New York City, $254,000, $280,000; Nugent Constr. Corp., 505-5th Ave., New York City, $259,785, $282,000.

★Va., Richmond—Schools—City let general contract building 2 story, 93 x 157 ft., on 34th St. and Semmes Ave., to J. Fox & Sons, 25th and Franklin Sts., $109,490; 2 story, 110 x 156 ft., on Fendale and Crawford Sts., to J. T. Nickols, 11th and Main Sts., $110,000.

★N. C., Greensboro — Dormitories — Bd. Trustees and J. I. Foust, pres. North Carolina College for Women, let contract constructing 3 dormitories and west wing of McIver Bldg., on campus, to J. Jones Constr. Co., Realty Bldg., Charlotte, $364,310. Noted July 21.

★La., New Orleans—Hospital—Eye, Ear, Nose & Throat Hospital, 165 Elks Pl., let contract building 4-story, 44 x 109 ft. steel and rein.-con., to G. J. Glover, Whitney Central Bldg. About $335,000. Noted Feb. 10.

★O., Alliance — High School — Bd. Educ. let contract building 2 story, 114 x 172 ft., brick, steel and concrete addition, to A. F. Wendling Co., Massillon, $188,126. Noted Aug. 4.

★O., Cleveland — Apartment — N. Weltman, 3350 Ormand Rd., let contract building 3 story, 43 x 150 ft., brick and steel, brick foundation, at 1920 East 101st St., to Cooper & Berkowitz, Linn Dr. About $150,000. Noted April 28.

★O., Cleveland — Commercial — Frankel Light Co., 5016 Woodland Ave., let contract building 4 story, 66 x 154 ft., brick and steel, brick foundation, on West 6th St. and St. Clair Ave., to J. Miller, 2381 East 46th St. About $150,000. Noted Aug. 4.

O., Cleveland Heights (Warrensville, P. O.)—School—Bd. Educ., Lee Rd., opened bids Aug. 5, building 3 story, brick, steel and concrete, on Taylor Rd., from Hearn Const. Co., 4501 Euclid Ave., Cleveland, $303,560; Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $304,940; Tenbusch-Parker Constr. Co., Union Bldg., Cleveland, $314,788. Noted July 28.

★O., Dayton—Convent and Chapel—Sisters of Precious Blood, 605 Xenia Ave., let contract building 3-story, brick and concrete, rein.-con. flooring, concrete foundation, on Salem Pike, to Danis Hunt Constr. Co., 907 Schwind Bldg. About $850,000.

O., Dayton — School — Bd. Educ., Steele High School Bldg., opened bids Aug. 3, building school, on Jackson St., from Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $347,130; Danis-Hunt Constr. Co. 1st and Webb Sts., $358,353; D. W. McGrath & Son, New 1st Natl. Bank Bldg., Columbus, $368,000.

O., Elyria — Schools, etc. — Bd. Educ. received bids Aug. 9 building Roosevelt School, 2 story, also 2 story, 82x121 ft. school, including heating plants, brick, steel and concrete, rein.-con. flooring, brick and concrete foundations, from L. A. Burgett Co., Lorain, $345,251; J. Kaiser & Bro., Elyria, $367,000; G. Kratt, Lorain, $370,000. Noted Aug. 4.

★O., Toledo—School—Bd. Educ. let contract building Oakdale-White School, 3 story, 70x300 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, to A. Bentley & Son, 201-31 Belmont Ave. About $500,000.

★Ill., Chicago—Bank and Office—Lake Shore Trust & Savings Bank, c/o North Town Bldg. Corp., E. N. Winston, pres., 38 South Dearborn St., let contract building 4 story, 99 x 117 ft., rein.-con. and brick, at 140-46 East Ohio St., to J. Rodatz, 209 South La Salle St. About $300,000. Noted Mar. 10.

★Ill., Chillicothe — High School — Bd. Educ. let contract building 2-story, 104 x 120 ft., rein.-con., brick, stone and steel, to Illinois Constr. Co., 111 West Washington St., Chicago. About $150,000. Noted July 28.

★Ill., Decatur — Sanitarium — Macon County Tuberculosis Assn., c/o T. B. Samuels, secy., let contract building 2 story, rein.-con., steel and stone, to McDonald & Baker, Conklin Bldg. About $150,000. Noted June 16.

★Ill., Winchester — High School — Bd. Educ., c/o W. Wainwright, let contract building 3 story, 100 x 140 ft., brick, stone and steel, to Buerkin & Buerkin, Quincy. About $150,000. Noted June 9.

Mich., Ironwood—Municipal—City opened bids Aug. 9, building brick and concrete, rein.-con. flooring, concrete foundation, from Albinson Constructing Co., 717 Nicollet Ave., Minneapolis, $263,230; W. D. Lovell, 1415 8th St., Minneapolis, $275,000; H. Evers, 1603 Washington St., Minneapolis, $281,253.

★Ia., Clinton — Hospital — Jane Lamb Memorial Hospital let general contract building 4 story, rein.-con., brick, stone and tile addition, to Haring Bros., 402 Wilson Blvd. About $400,000.

★Minn., Collegeville — Bldg. Hall — St. Johns University let general contract building 5 story, 50 x 150 ft., rein.-con., brick, tile and stone, to Gauger-Korsmo Constr. Co., 301 Endicott Bldg., St. Paul. About $200,000.

Buildings (Continued)

★Minn., Rochester—Hospital—St. Marys Hospital, let general contract building 6 story, rein.-con., brick, tile and stone addition, to Heffrom-Fitzgerald Constr. Co., Rochester. Total cost about $2,000,000.

★Kan., Wichita—Theatre and Commercial—Miller Amusement Co., Palace Theatre, let contract building 3 story, 140 x 150 ft., on North Lawrence St., to W. M. Southerland Bldg. & Constr. Co., Syndicate Trust Bldg., St. Louis, Mo. About $600,000. Noted August 4.

★Mo., Kansas City — Apartment — C. O. Jones, Commerce Bldg., will construct 4-story, 46 x 132-ft. brick, stone and steel, on 42nd & Locust Sts. About $150,000. Work will be done by day labor. N. E. Peters, c/o owner, archt. Noted Aug. 11.

★Mo., Kansas City—High School—Bd. Educ. let contract building Lincoln High School, 4 story, 55x140 feet., brick, stone and rein.-con., on Tracy St., between 18th aid 19th Sts., to J. P. J. Morley, Scheidley Bldg. About $150,000.

Tex., College Station—School—State let contract constructing 2 agricultural buildings and engineering shops, rein.-con., at A. & M. College, here, to Wattinger Bros., Austin. About $400,000. Noted June 30.

★Okla., Clinton—Hospital—State Bd. Pub. Affairs, 22d and Lincoln Sts., Oklahoma City, let contract building 2 story, rein-con. and brick addition, here, to Manhattan Constr. Co., 3rd and Fondulac Sts., Muskogee. About $150,000.
E & D

Federal Government Work

PROPOSED WORK

Wis., Milwaukee — Hospital — U. S. Government, c/o Bd. Managers of Natl. Soldiers' Homes, Dayton, O., having preliminary plans prepared by Scott & Mayer, archts., 445 Milwaukee St., Milwaukee, for 2 story, brick and concrete, on Soldiers' Home Grounds, here. About $1,400,000. Schenck & Williams, Dayton, O., superv. archts.

BIDS DESIRED

Ill., Belleville — Airship Hangar — Until Sept. 15, at office of Chief of Construction Service, Room 2242, Munitions Bldg., Wash., D. C., constructing steel airship hangar at Scott Field, here; advertised in this issue.

Ill., Chicago—Reservoir—Until Aug. 29, by Treas. Dept., Wash., D. C., constructing at Broad View U. S. Public Health Service Hospital, 2, here. J. A. Wetmore, superv. archt.

Ill., Monmouth — Mailing Shed, etc. — Until Aug. 26, by Treas. Dept., Wash., D. C., constructing mailing shed and altering first floor, U. S. Post Office, here. J. A. Wetmore, acting superv. archt.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★R. I., Providence—Dredging—U. S. Engineer let contract dredging in New Haven Harbor, Conn., to J. S. Packard Dredging Co., 104 Turks Head Bldg., Providence, R. I. About $40,000. Noted July 28.

★N. Y., Buffalo—Riprap—U. S. Engineer let contract furnishing and placing riprap stone on Neck of Presque Isle Peninsula, Erie Harbor, Pa., to Harbor Impvt. Co., Cleveland, O. $34,500. Noted July 21.

★N. Y., New York—Dredging—U. E. Engineer, 2nd Dist., Room 616, Army Bldg., let contracts dredging in Shrewsbury River and Keyport Harbor, N. J. to J. P. Randerson, 51 State St., Albany, $14,900, and Taylor Dredging Co., Com'paw Ave., Jersey City, N. J., $11,225. Noted July 7.

★N. Y., New York — Drill Boat — U. S. Engineer, First Dist., Room 710, Army Bldg., 39 Whitehall St., let contract constructing and delivering drill boat for East River, to Dravo Cont. Co., Diamond Bank Bldg., Pittsburgh, Pa., $431,500. Noted May 26.

★Pa., Pittsburgh — Lock Valves — U. S. Engineer let contract furnishing and delivering for Lock 5, Allegheny River, to Variety Iron & Steel Wks. Co., Hamilton Ave. and East 40th St., Cleveland, O., $4,477. Noted Aug. 4.

★Md., Baltimore—Dredging—U. S. Engineer let contract dredging in Tangier Channel, Va., to W. H. French Dredging & Wrecking Co., Arcade Bldg., Norfolk, Va., $12,201. Noted June 23.

Va., Yorktown — Water and Sewerage Systems — Spec. 4449 — Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing at Navy Mine Depot, here, from J. R. Proctor, Inc., 120 Liberty St., New York City, $84,980 (120 days); B. Pizzimenti, 2555 Rhode Island Ave., N.E., Hyattsville, Md., $87,260 (150 days); Wingo & Deaner, P. O. Box 816, Richmond, $88,087 (120 days). Noted Aug. 4.

Va., Yorktown—Water Tanks and Towers—Spec. 4357—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing, here, (1) work complete from Penn Bridge Wks., Clinton, Ia., (1) $11,350 (120 days), (2) $15,400 (120 days); Pittsburgh-Des Moines Steel Co., Munsey Bldg., Wash. D. C., (1) $14,970 (120 days), (2) $7,540 (120 days), (3) $7,480 (120 days; Chicago Bridge & Iron Co., 30 Church St., New York City, (1) $17,650 (120 days). Noted Aug. 4.

★Tenn., Memphis—Levee Work—Mississippi River Comn., 1st and 2nd Dists., Custom House, let contracts constructing levee work, in Upper and Lower St. Francis and Reelfoot Levee Dists., to Roach, Stansell, Laurance Bros., & Co., Savings Bank Bldg., North Memphis, $56,240; in White River Levee Dist., to J. A. Burt, Gunnison, Miss., $5,775. Noted March 17 and July 7.

★Tenn., Nashville—Steel Barges—U. S. Engineer let contract for two steel barges to Midland Barge Co., Midland, Pa., $27,760. Noted June 16.

★Tex., Galveston — Submerged Riprap Spurs—U. S. Engineer let contract constructing from North Jetty at Port Arkansas, to C. Clark & Co., 111 Security Bldg., Galveston, $115,834. Noted July 14.

★Cal., San Diego—Sprinkler System—Spec. 4466—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing in storehouse, Naval Base, here, to Western Automatic Sprinkler Co., 1031 Van Nuys St., San Francisco, $18,380 (180 days). Noted Aug. 4.

Miscellaneous

PROPOSED WORK

Garbage Collection Trailer System—New Orleans, La.—City Council plans to expend $151,800 for garbage collection trailer system. This amount will cover the budget for 8 motor trucks, cost $34,000; additional crane to be used at dump, $15,000; additional switch tracks and gravel roadway, $4,000. A. Klorer, city engr.

Incinerators — New Orleans, La. — City plans to construct garbage incinerator system. Bids will soon be received for building to house equipment, etc. J. Klorer, city engr.

Garbage Incinerator—Fargo, N. D.—City plans to erect garbage incinerator. About $30,000. A. R. Watkins, clk.

Paving Materials—St. Paul, Minn.—City rejected bids received July 5, furnishing materials for paving Maryland Ave. between Payne and Duluth Aves. See item under "Streets & Roads"—Prices and Contracts Awarded. Noted July 21.

BIDS DESIRED

Dock—Mamaroneck, N. Y.—Until Aug. 23, by Bd. Trustees building dock near Harbor Island. L. Harding, pres.; advertised in this issue.

Gyratory Crusher, etc.—New York, N. Y.—Until Aug. 24, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and installing gyratory crusher, inclined bucket elevator and asphalt mixer, etc. and furnishing and erecting new structural steel, cutting and re-erecting new structural steel, cutting and re-erecting existing steel, in Municipal Asphalt Plant, 90th St. and East River.

Culverts, etc.—New Jersey—Until Aug. 31, by State Highway Comn., Broad St. Bank Bldg., Trenton, constructing two reinforced double concrete culverts, wing walls, balustrades and asphalt block pavement, on route beginning at Egg Harbor and ending at West Cape May, in proximity of Estellville, municipality of Weymouth, Atlantic Co. C. A. Mead, 790 Broad St., Newark, bridge engr.; advertised in this issue.

Pier—Philadelphia, Pa.—Until Sept. 9, by G. F. Sproule, dir. Dept. Wharfs, Docks and Ferries, constructing superstructure Chestnut St. Pier 4, South Delaware River; advertised in this issue.

Motor Truck—Wauwatosa, Wis.—Until Sept. 2, by A. Brigham, city clk., furnishing motor truck, 1 ton capacity.

Lighting System—Jackson, Minn.—Until Aug. 23, by City, c/o B. H. Strom, clk., installing ornamental street lighting system on about 8 blocks. About $25,000. A. Kerr & Co., 240 LaSalle Bldg., Minneapolis, engrs.

Wharf and Shed—Houston, Tex.—Until Sept. 1, by City Secretary, constructing 480 ft. creosoted timber pile wharf and corrugated iron transit shed, 180 ft. wide, together with necessary grading and railroad tracks. E. E. Sands, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Pier—East Braintree, Mass., State Pub. Wks. Dept., 420 State House, Boston, received bids Aug. 5, excavating and building 190 x 200 ft. and 51 x 350 ft. wood and concrete pier, here, from W. L. Miller Co., 147 Alfred St., Charlestown, $187,918; Bay State Dredging Co., 62 Condor St., Boston, $197,148; Aberthaw Constr. Co., 27 School St., Boston, $210,763.

Sand — New York, N. Y. — Bd. Purch. Municipal Bldg., opened bids Aug. 15, furnishing and delivering sand to Dept. Parks, Bronx, from Ames Bldg. & Material Co., 3437 Kingsbridge Rd., $2,072; J. Paladino, $2,100; Lanigan Bros., Bronx River and 165th St., $2,400.

Wood Paving Blocks—New York, N. Y.—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Aug. 9, furnishing and delivering 5,500 sq.yd. wood paving blocks, from Amer. Creosoting Co., 17 Battery Pl., (a) $2.29 per sq.yd., total cost $12,595, (b) $2.13, $11,715, (c) $1.99, $10,945; W. J. Fitzgerald, 547 West 45th St., (a) $2.39, $13,145. Noted Aug. 4.

Heating System — Wash., D. C. — Dist. Comrs., 509 Dist. Bldg., received bids furnishing and installing complete 2 pipe vacuum heating system in Gallinger Hospital, 19th St. and Massachusetts Ave., from Federal Heating Co., 310 13th St., N.W., $50,814 (100 days); Globe Automatic Sprinkler Co., 2035 Washington St., Phila., $53,000; Shevlin Eng. Co., 110 West 34th St., New York City, $54,807. Adv. Aug. 4.

Wharfs and Sheds—New Orleans, La.—Bd. Port Comrs., New Court House Bldg., opened bids Aug. 9, constructing wharf and approaches at foot of Charbonnet St., from Dalgarn Constr. Co., Louisiana Bldg., $99,450, J. Reiss, Carondelet Bldg., Carondelet and Gravier Sts., N., $100,650, Waddell & Juliani, 1204 Jackson Ave., $100,674. Noted Feb. 10.

Foundation—Ashtabula, O.—City received bids building foundation of 1 story, 50 x 50 ft. power plant, brick, steel and concrete, from Hughes & Foulkrod, Oliver Bldg., Pittsburgh. Total cost $100,000. Noted Feb. 24 under "Industrial Works."

★Concrete Piles, etc.—Milwaukee, Wis.—Sewerage Comn. let contract for 23,000 lin. ft. concrete piles cast in place, for machinery foundations for main power house on Jones Island, to E. D. Watt, licensee for Raymond Concrete Pile Co., 111 West Monroe St., Chicago, at $1.74 per lin. ft. Former contract rescinded. Noted July 21.

★Cast Iron Water Pipe—Manitowoc, Wis.—City let contract furnishing 1 carload c.i. water pipe, to Natl. Cast Iron Pipe Co., 122 South Michigan Ave., Chicago, $44.85 per ton.

★Paving Materials — St. Paul, Minn.—City let contracts to T. McDonald, 1541 Ashland Ave., for furnishing 935 cu.yd. crushed rock for concrete base, at $2.44 per cu.yd. delivered, 561 cu.yd. concrete sand, $1.30, 384 cu.yd. fine asphalt sand, $1.90, and 190 cu.yd. coarse asphalt sand, $1.44; to St. Paul Builders Materials Co., 605 Ryan Annex, 1,330 bbl. Portland cement, $2.55; Minnesota Crushed Stone Co., 1500 Johnson St., N. E., Minneapolis, 115 ton limestone dust, at $5.50 net delivered; Trap Rock Co., Bway. and K. St., Minneapolis, 137 ton traprock, $2.47 f.o.b. cars; J. L. Shiely Co., 305 Dakota Bldg., 275 ton binder stone, etc., $1.70 delivered. Noted July 21.

★Swimming Pool—St. Louis, Mo.—J. J. Jamieson, archt., Security Bldg., let contract to Southerland Constr. Co., Syndicate Trust Bldg., constructing 1 story, 75x170 ft., brick, stone and rein.-con. swimming pool, for Washington University, Skinker Rd. and Forsyth St. About $150,000. Noted July 21.

CONSTRUCTION
NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Aug. 29	Carthage, N. Y.	Aug. 11
Aug. 31	Pana, Ill.	Aug. 25
Aug. 31	St. Paul, Va.	Aug. 25
Sept. 1	Verona, Pa.	July 21
Sept. 1	Buffalo, N. Y.	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 1	Lachute, Que.	Aug. 25
Sept. 6	Kittaning, Pa.	Aug. 18
Sept. 16	Abilene, Tex.	Aug. 25

SEWERS

Bids Close		See Eng. News-Record
Aug. 30	Monroe, Mich.	Aug. 18
	Adv. Aug. 18 and 25.	
Aug. 30	St. Louis, Mo.	Aug. 25
Aug. 31	Brooklyn, N. Y.	Aug. 25
Aug. 31	Tippecanoe City, O.	Aug. 25
Sept. 1	Two Rivers, Wis.	Aug. 25
Sept. 1	Glendale, Cal.	Aug. 25
Sept. 1	Long Island City, N. Y.	Aug. 25
Sept. 6	Canton, S. D.	Aug. 18
Sept. 6	Opelousas, La.	Aug. 18
Sept. 6	St. Louis, Mo.	Aug. 18
Sept. 6	Albany, Minn.	Aug. 25
Sept. 6	Palmyra, N. J.	Aug. 25
Sept. 13	Passaic, N. J.	Aug 25

BRIDGES

Bids Close		See Eng. News-Record
Aug. 29	Pittsburgh, Pa.	Aug. 18
Aug. 29	Michigan	Aug 18
Aug. 30	Kelso, Wash.	July 28
Aug. 30	Spencer, Ia.	Aug. 25
Aug. 31	New Jersey	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 1	Marysville, Kan.	Aug. 25
Sept. 2	Genoa Junction, Wis.	Aug. 25
Sept. 3	Madison, W. Va.	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 6	Trenton, N. J.	Aug. 25
	Adv. Aug. 25.	
Sept. 7	Kingman, Kan.	June 30
Sept. 7	Muscatine, Ia.	Aug. 25
Sept. 7	New Jersey	Aug. 25
Sept. 12	Middlebourne, W. Va.	Aug. 25
Sept. 15	London, Ont.	Aug. 25
Sept. 16	Columbus, O.	Aug. 25

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Aug. 29	Bozeman, Mont.	Aug. 25
Aug. 31	Newton, Ill.	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 1	Pelee Island, Ont.	Aug. 25
Sept. 6	Mason City, Ia.	Aug. 11
Sept. 6	Oskaloosa, Ia.	Aug. 25
Sept. 8	Aitken, Minn.	Aug. 18

STREETS AND ROADS

Bids Close		See Eng. News-Record
Aug. 26	New York	Aug 18
	Adv. Aug. 18 and 25.	
Aug. 29	Ft. Worth, Tex.	Aug. 18
Aug. 29	Quitman, Tex.	Aug. 18
Aug. 29	Seattle, Wash.	Aug. 18
Aug. 29	California	Aug. 18
Aug. 29	Louisiana	Aug. 18
Aug. 29	Louisiana	Aug. 25
Aug. 30	Troy, Kan.	Aug. 4
Aug. 30	Washington	Aug. 18
Aug. 30	Durham, N. C.	Aug. 18
Aug. 30	Maryland	Aug. 18
	Adv. Aug. 18 and 25.	
Aug. 30	New Mexico	Aug. 18
Aug. 30	Saginaw, Mich.	Aug. 25
Aug. 30	West Frankfort, Ill.	Aug. 25
Aug. 30	Eureka, Ill.	Aug. 25
Aug. 30	Elgin, Ill.	Aug. 25
Aug. 30	Spencer, Ia.	Aug. 25
Aug. 30	New York, N. Y.	Aug. 25
Aug. 30	New Castle, Pa.	Aug. 25
Aug. 31	Hiawatha, Kan.	Aug. 4
Aug. 31	New Jersey	Aug. 18
	Adv. Aug. 18 and 25.	
Aug. 31	Allison, Ia.	Aug. 25
Aug. 31	Brooklyn, N. Y.	Aug. 25
Sept. 1	Fairmont, Minn.	Aug. 11
Sept. 1	Oakwood (Dayton P. O.), O.	Aug. 25
Sept. 1	Lachute, Que.	Aug. 25
Sept. 1	Denver, Col.	Aug. 25
Sept. 2.	Ottawa, Kan.	Aug. 4
Sept. 2	Rolling Fork, Miss.	Aug. 18
Sept. 2	Bellaire, Mich.	Aug. 25
Sept. 2	Hillsdale, Mich.	Aug. 25
Sept. 3	Cleveland, O.	Aug. 25
Sept. 6	California	Aug. 25
Sept. 6	Seattle, Wash.	Aug. 18
Sept. 6	Burlington, N. J.	Aug. 18
Sept. 6	Minneapolis, Minn.	Aug. 18
Sept. 6	Grundy Center, Ia.	Aug. 25
Sept. 6	New Jersey	Aug. 25
Sept. 6	Vicksburg, Miss.	Aug. 25
Sept. 6	Slayton, Minn.	Aug. 25
Sept. 6	Hot Springs, S. D.	Aug. 25
Sept. 7	Aitkin, Minn.	Aug. 25
Sept. 7	Muscatine, Ia.	Aug. 25
Sept. 9	Alabama	Aug. 18
Sept. 12	Louisiana	Aug. 25
Sept. 16	Junction City, Kan.	Aug. 25
Sept. 19	Clarksville, Tex.	Aug. 25

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Aug. 29	Milwaukee, Wis.	Aug. 25
Sept. 3	London, Ont.	Aug. 25
Sept. 7	Harrisburg, Pa.	Aug. 18
	Adv. Aug. 18 and 25.	

BUILDINGS

Bids Close		See Eng. News-Record
Aug. 28	Beaumont, Tex.	Aug. 25
Aug. 29	Cleveland, O.	Aug. 4
Aug. 29	Nashville, Tenn.	Aug. 11
Aug. 29	Struthers, O.	Aug. 18
Aug. 30	Mt. Vernon, Ind.	Aug. 4
Aug. 30	Webster City, Ia.	Aug. 11
Aug. 30	Fairfield, Ia.	Aug. 18
Aug. 30	Philadelphia, Pa.	Aug. 18
Aug. 30	Malden, Mass.	Aug. 18
Aug. 30	Newton, Ill.	Aug. 25
Aug. 31	Coney Island, N. Y.	Aug. 25
Sept. 1	Oak Park, Ill.	Aug. 25
Sept. 1	Champaign, Ill.	Aug. 25
Sept. 1	Bascom, O.	Aug. 4
Sept. 1	Colorado	Aug. 18
Sept. 1	Blanford, Mass.	Aug. 18
Sept. 1	Upper Darby, Pa.	Aug. 18
Sept. 1	Mahanoy City, Pa.	Aug. 18
Sept. 2	Brooklyn, N. Y.	Aug. 25
Sept. 2	Rochester, N. Y.	Aug. 25
Sept. 6	Lincoln, Neb.	July 21
Sept. 6	Mankato, Minn.	Aug. 18
Sept. 6	Joliet, Ill.	Aug. 25
Sept. 6	Perrysburg, N. Y.	Aug. 25
Sept. 6	Cedar Grove, Wis.	Aug. 25
Sept. 7	Ravenna, O.	Aug. 25
Sept. 8	Pittsburgh, Pa.	Aug. 25
Sept. 9	Ravenna, O.	Aug. 4
Sept. 12	Shelby, Mich.	Aug. 25
Sept. 15	Detroit, Mich.	Aug. 25
Sept. 16	Great Bend, Kan.	Aug. 11
Sept. 16	Kearney (Arlington P. O.) N. J.	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 20	Detroit, Mich.	Aug. 25
Oct. 1	Williamsport, Pa.	Aug. 4

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Aug. 29	Alterations to Post Office — Eugene, Ore.	Aug. 11
Aug. 29	Reservoir—Chicago, Ill.	Aug. 18
Aug. 30	Hospital—Lake City, Fla.	Aug. 4
Aug. 31	Dredging, Detroit, Mich.	Aug. 4
Aug. 31	Sprinkler System—Charleston, S. C.	Aug. 11
Aug. 31	Ash Bunker, Power House Extension, etc.—Annapolis, Md.	Aug. 11
Aug. 31	Gun Shed—Norfolk, Va.	Aug. 11
Aug. 31	Power Plant Impvts. — Lake Denmark, N. J.	Aug. 25
Aug. 31	Quay Wall—Norfolk, Va.	Aug. 25
Sept. 1	Alterations to Post Office—Muncie, Ind.	Aug. 25
Sept. 2	Barges—Pittsburgh, Pa.	Aug. 11
	Adv. Aug. 11 to 25.	
Sept. 5	Wreck Removal — Norfolk, Va.	Aug. 11
	Adv. Aug. 11 to 25.	
Sept. 5	Steel Barges — Memphis, Tenn.	Aug. 11
	Adv. Aug. 11 to 25.	
Sept. 6	Alterations to Post Office—Greensboro, N. C.	Aug. 25
Sept. 6	Water-proofing Walls—Newport, R. I.	Aug. 25
Sept. 6	Refrigerating Plant—Alexandria, La.	Aug. 25
Sept. 7	Dredging—Phila., Pa.	
	Adv. Aug. 11 to 25.	
Sept. 7	Quay Wall Extension—San Diego, Cal.	Aug. 11
Sept. 7	Riprapping Dike — Mare Island, Cal.	Aug. 11
Sept. 7	Dredging and Filling, etc.—San Diego, Cal.	Aug. 11
Sept. 7	Crane—South Boston (Boston P. O.), Mass.	Aug. 11
Sept. 7	Crane — Puget Sound, Wash.	Aug. 11
Sept. 14	Pumping Units — Denver, Col.	July 28
Sept. 15	Airship Hangar—Belleville, Ill.	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 19	Dredging—Detroit, Mich.	Aug. 25
Sept. 21	Machine Shop—Pearl Harbor, H. T.	Aug. 11
Sept. 22	Emergency Dams — Seattle Wash.	Aug. 11
	Adv. Aug. 11 to 25.	

MISCELLANEOUS

Bids Close		See Eng. News-Record
Aug. 30	Stations—Phila., Pa.	Aug. 18
Aug. 30	Vitr. Segment Sewer Block, etc.—Ottawa, Ont.	Aug. 25
Aug. 30	Breakwater—Racine, Wis.	Aug. 25
Aug. 30	Bituminous Dressing—Trenton, N. J.	Aug. 25
Aug. 31	Culverts, etc.—New Jersey	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 1	Incinerators — Houston, Tex.	Aug. 18
Sept. 1	Wharf and Transit Shed—Houston, Tex.	Aug. 18
Sept. 2	Motor Truck, Wauwatosa, Wis.	Aug. 18
Sept. 2.	Heating and Ventilating Apparatus—Newtown (Flushing P. O.) N. Y.	Aug. 25
Sept. 7	Dredge—Belzoni, Miss.	Aug. 11
	Adv. Aug. 11 to 25.	
Sept. 7	Culverts—Salem, N. J.	Aug. 25
	Adv. Aug. 18 and 25.	
Sept. 9	Piers—Phila., Pa.	Aug. 18
	Adv. Aug. 18 and 25.	
Sept. 12	Garbage Disposal—Providence, R. I.	Aug. 11
	Adv. Aug. 11 to 25.	
Sept. 17	Railway Ties — Toronto, Ont.	Aug. 11

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Va., Williamson—City reained Hill & Ferguson, consult. engrs., 112 East 19th St., New York City, to prepare plans for improving waterworks and sewerage sytem.

S. D., Mitchell—City plans to extend water mains. About $75,000. F. J. Hansen, ciy engr.

Mich., Springwells—B. P. Esper, village clk., soon receives bids constructing watermains in Mead, Ternes, Town Line, Scott, Argyle, Drysdale, Steadman, Thayer Vernor, Brandt and Grove Aves., involving 6,330 ft. 10 in., 10,840 ft. 8 in. and 16,700 ft. 6 in. c.i. pipe.

Minn., LeRoy—City having plans prepared extending water mains. About $15,000. W. E. Buell, 205 Davidson Bldg., Sioux City, Ia., engr.

Tex, Texline—City voted $55,000 bonds to construct water system and electric light plant. J. H. Bender, Clayton, N. M., engr.

BIDS DESIRED

Va., St. Paul—Until Aug. 31, by C. C. Bolton, mayor, building 100,000 gal. rein.-con. reservoir, filter plant, and laying 8,000 ft. c. i. pipe. W. W. Bennett, Rocky Mount., engr.

Ill., Pana—Until Aug. 31, by city, c/o Water Supply Dept., reconstructing 5,000,000 gal. reservoir. About $75,000. A. C. Stanfield, city engr. Noted Mar. 24.

Tex., Abilene—Until Sept. 16, by Comrs. Court, constructing 16 mi. pipe line and storage basin, involving 100,000 cu.yd. earth excav. W. A. Kiney, Abilene, engr. Separate bids on storage basin.

Okla., Pryor Creek—V. V. Long & Co., engrs., Colcord Bldg., Oklahoma City, receiving bids building water purification and electric pumping plants, also 8 mi. transmission line, for city. About $75,000. Noted July 7.

Que., Lachute — Until Sept. 1, by A. Tremblay, mayor, extending water works system and building 300 ft. concrete protective wall along south bank of North River, 6 ft. high, 6 ft. wide. About $28,000. A. Sarsfield, c/o Mayor, engr

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., New York—Dept. Water, Gas & Electricity, Municipal Bldg., let contracts furnishing, delivering and laying water mains and appurtenances in Concord, Jackson, Melrose, Prospect and Trinity Aves., East 144th, East 151st, East 155th and East 158th Sts., Bronx Boro., to Paladino Contg., 437 East 120th St., $139,364; 1st Ave., Dyckman, East 117th, West and Marginal Sts., Manhattan Boro. and Laigh, Pierce and Van Nest Aves., East 138th and Adams Sts., Bronx Boro., to C. Deblasio, 1764 Honeywell Ave., $31,731. Noted Aug. 11.

★N. J., West New York—See "Sewers."

★Mich., Bay City—City let contract laying force mains and installing river crossings, connecting west side pumping plant with distribution system, to W. J. Meagher, Washington St., $382,063.

★Mich., Springwells—Village let contract laying water pipe in Mead, Ternes, Town Line, Scott, Arygyle, Drysdale, Steadman, Thayer and Vernor Aves., involving 33,870 ft. 6, 8 and 10 in. pipe, to J. A. McDace Co., 4036 Fairview Ave., Detroit. About $15,000.

★Ill., Mattoon—City let contracts reconstructing "Paradise" reservoir, increasing capacity to 1,000,000,000 gal., concrete work to A. C. Loomis, 321 South 18th St.; dirt work, H. L. Powel, Mattoon. Total cost, about $125,000. Noted Aug. 11.

★Minn., Atwater — Village let contract extending watermains, to Pittsburgh-Des Moines Steel Co., Tuttle and S. W. 10th Sts., Des Moines, Ia., at $10,150. Noted Aug. 4.

★Mo., Poplar Bluff—City will build addition to waterworks system and relay 2-4-6 in. old mains. About $27,000. Work will be done by day labor. Noted July 7.

★Tex., Dallas—City Comrs. let following contracts building water purification plant at White Rock Reservoir with daily capacity 15,000,000 gal.: general contract to Hughes-O'Rourke Constr. Co., Wall and Corinth Sts., $223,794; filter piping and equipment to J. N. Didinger, 1131 Winghocking St., Phila., $70,646; steel tanks and towers to Pittsburgh-Des Moines Steel Co., Praetorian Bldg., $7,960. Noted July 21.

★Okla., Pawkuska — City let contract building filtration plant, extensions to distribution system, and 2,000,000 gal. capacity steel tank, to Stanton-Ammerman & Co., Wichita, Kan., $165,442.

Sewers

PROPOSED WORK

Va., St. Paul—City plans to build 10,000 ft. vitr. pipe sewers. Bond issue authorized. W. W. Bennett, Rocky Mount, engr.

W. Va., Spencer—State Bd. Control, Charleston, plans to lay sewers and build sewage disposal plant at State Hospital, here. About $25,000. C. E. Collins, Drexel Bldg., Phila., engr.

O., Columbus—City having plans prepared building 3 mi. 15-36 in. sewers in Clinton Dist. 2, along bank of Olentangy River, north of here, to Worthington, cost $160,000; 5,500 ft. sewer in Marion Dist. 1 to connect with city sewerage system at Parsons and Kian Aves., $47,000. E. T. Bradbury, Gugle Bldg., engr.

O., Dayton—City plans to lay 35,000 ft. 6-48 in. vitr. and concrete sewer in Belmont Sanitary Sewer Dist. About $415,000. K. B. Allen, U. B. Bldg., engr.

Ill., Christopher — See "Streets and Roads."

Wis., Milwaukee—J. H. Fowler, secy. Sewerage Comn., receives bids in September furnishing 6,000 tons reinforcing steel, 150,000 bbl. cement, twenty-four 22x236 ft. rein.-con. tanks, 12 sedimentation tanks, 15 ft. deep, 98 ft. square, crushed stone, sand, gravel, etc., for constructing aeration and sedimentation tanks on Jones Island. About $2,000,000. T. C. Hatton, City Hall, engr. Noted Aug. 18 under "Miscellaneous."

Mo., Excelsior Springs — City retained Benham & Mullergren, engrs., Firestone Bldg., Kansas City, to prepare plans and specifications for modern sewage disposal plant of Imhoff type, here. Bonds for above project have been voted. W. R. Bales, city clk.

Tex., Mexia—City election Aug. 30 to vote on $25,000 bond issue to build storm sewers in various streets. J. F. Klotz, Mexia, engr.

Okla., Pawhuska—City election Sept. 6 to vote on $51,000 bonds to complete disposal plant. H. G. Olmsted & Co., Tradesman's Bank Bldg., Oklahoma City, engrs.

Ont., Ottawa—City plans to build storm sewers in Waverly and various other streets, involving 12,000 ft. vitr. and concrete pipe. About $75,000. Work will probably be done by day labor. A. F. Macallum, city engr.

BIDS DESIRED

N. Y., Brooklyn—Until Aug. 31, by E. Riegelmann, boro. pres., Boro Hall, building sanitary sewers in West 35th St. from Canal Ave. to point 600 ft. northerly, Canal Ave. from West 35th to West 37th Sts., West 37th St. between Neptune Ave. and bulkhead line of Gravesend Bay, 73rd St. between 19th and 20th Aves., and 74th St. between 19th and 20th Aves. and 20th Ave. between 73rd and 75th Sts., 76th St. between 10th Ave. and Fort Hamilton Parkway, 61st St. between New Utrecht and 15th Aves., Kermit Pl. between Coney Island Ave. and East 8th St.

N. Y., Long Island City—Until Sept. 1, by M. E. Connolly, pres. Queens Boro., Queens Subway Bldg., Hunterspoint and Van Alst Aves., building sewers in (1) Marion St. from point about 250 ft. north of Webster Ave. to Washington Ave., 1st Ward, (2) 16th Ave. from New York Connecting Railway to Flushing Ave. and temporary sewer on Flushing Ave. from 16th Ave. to point about 100 ft. westerly, 1st Ward, (3) Strong St. from 51st St. to Tiemann Ave., Tory St. from 51st St. to Tiemann Ave., Unity St. from Corona to Tiemann Aves., Varick St. from Corona to Tiemann Aves., Woodhull St. from Corona to Tiemann Aves., Orontes St. from 51st St. to Corona Ave., Corona Ave. from 51st to Woodhull Sts., Tiemann Ave. from Strong to Woodhull Sts., 2nd Ward, (4) Nostrand Pl. from Jamaica Ave. to crown about 370 ft. north of Jamaica Ave., 4th Ward; tunnel sewer and appurtenances in (5) 13th St. to Fiske Ave., Fiske Ave. from Polk Ave. to Queens Blvd. together with high level sewer in Fiske Ave. from Polk Ave. to Queens Blvd.

N. J., Palmyra—Until Sept. 6, by Palmyra Twp., building 12 mi. 5-30 in. terra cotta sewers in all streets. About $60,000. Remington & Vosbury, 6th and Market Sts., Camden, engrs. Noted Aug. 18.

N. J., Passaic—Until Sept. 13, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, building part of Sect. 19, Garfield-Wallington-Passaic branch intercepting sewer, consisting of Lodi St. River-Crossing, here and Boro of Wallington Bergen and Passaic Counties, involving earth excav., etc., in trench and open excavations for 42 in. c. i. pipe line crossing Passaic River, laying 42 in. c. i. pipe across Passaic River, 350 cu.yd. concrete and 80 cu.yd. brick masonry, 15,000 lb. steel for concrete reinforcement, etc. J. R. Van Duyne, ch. engr.

O., Columbus—W. H. Duffy, dir. Pub. Serv. receiving bids building sewage pumping station on Nelson Rd. Former contracts rescinded. R. H. Simpson, City Hall, engr. Noted Aug. 18.

O., Tippecanoe City—Until Aug. 31, by C. H. Paul, asst. ch. engr., Miami Conservancy Dist., Dayton, excavating and laying 4,000 ft. 12-30 in. vitr. sewer in 4th St. and Bull Run interceptor sewers, here, involving 155 cu.yd. rein.-con., 2,230 cu.yd. concrete, 17,000 cu.yd. earth trenching, 9,600 cu.yd. ditching and 27,000 lb. reinforcing steel. About $65,000.

Wis., Two Rivers—Until Sept. 1, by city, building sewers in various streets, involving 15,713 ft. 6-12 in. vitr. pipe, 752 ft. 8-12 in y's and 41 manholes. J. Doleysh, clk.

Minn., Albany—Until Sept. 6, by Village, building sanitary sewers in various streets, involving 7,663 ft. 6-12 in. pipe, 1,000 ft. 2 in. galvanized pipe, 1,000 ft. fence, 22 manholes, 2 concrete bulkheads, 1 sludge bed, 1 disposal plant, 1 by-pass manhole, etc. About $40,000. Bradley Eng. Service, St. Cloud, engrs.

Mo., St. Louis—Until Aug. 30, by city, c/o E. R. Kinsey, clk., building sewer in Rock Creek Sewer Dist. 6. About $61,000. Private plans. Noted April 21.

Cal., Glendale—Until Sept. 1, by City Council, building sewerage system in Verdugo Canyon. About $30,000. Noted Mar. 31.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., let contracts building sewer in Jay Ave., etc., to G. L. Schrade, 193 Beach 108th St., Seaside, (a) $26,478, (b) $24,336; Jeffrey Ave., etc., to F. Spinelli, 142 Jefferson St., Brooklyn, $3,087. Noted Aug. 11.

N. Y., New York—H. Bruckner, pres. Bronx Boro., rejected bids opened Aug. 10 building sewers in West Kingsbridge Rd. between existing sewers west of Webb Ave., also Webb Ave., etc. About $35,000. Work will be readvertised. Noted Aug. 18, under "Streets and Roads."

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro., opened bids Aug. 18, building (a) sewage treatment plant in block bounded by Quincy St., Cromwell, Boardman and Scotland Aves.; relay pumping station in (b) Seaside Blvd., (c) Hinschcliff Ave., from Disposal Equipment Co., 165 Bway., New York City, (a) $104,436, (b) $79,871, (c) $104,672; Simpson-Brown & Co., Inc., 90 West St., New York City, (b) $83,988; Frawley-Kaufman Co., (b) $90,876. Noted Aug. 4.

★N. J., West New York—City let contract laying sewers, water mains, gas connections, concrete sidewalks and paving 7 blocks Washington St., bituminous concrete or granite block, to G. J. Hornung, 513 16th St. About $35,000.

★Pa., Phila.—City let contract building sewer in Pratt St. from Oakland to Loretta Sts., to Oneill Co., 127 East Mermaid Lane. About $115,000.

Pa., Phila.—F. Craven, dir. Bureau Highways, received lowest 3 bids Aug. 17, building sewers in Delaware Ave. from Snyder to Bigler Sts., from E. Pascuzzi, Lincoln Bldg.; A. Devito, Lincoln Bldg.; W. H. Carson, 5000 North Brown St. Cost to exceed $200,000. Unit prices may be obtained by writing Engineering News-Record. Noted Aug. 11.

★Pa., Pittsburgh—City let contract building relief sewers in Homewood Dist., to Pittsburgh Paving Co., Bakewell Bldg., $63,538.

★O., Cuyahoga Falls—City let contract building 7,000 ft. 12-24 in. intercepting and trunk sewers in West Side Sewerage System, to E. and W. McShaffrey, Rhodes Ave., Akron, $37,968.

O., West Park—Ford Realty & Constr. Co., Cadillac Bldg., Cleveland, received bids laying 28,450 ft. 8-36 in. vitr. sewer in Ford Allotment, from W. B. Smith, 1350 West 89th St., Cleveland, $112,000; N. Iafornaro, 3218 Murray Hill Rd., Cleveland, $118,000. Former bids rejected. Noted July 14.

★Mich., Detroit—City let contract to Booth & Flinn, 114 Cadillac Sq., building

Sewers (Continued)

Sect. 4 Bates St. Sewer, $492,556, Alfred St. Arm of Bates St. Sewer, $104,575; G. R. Cooke, 1260 Penobscot Bldg., Sect. 4, Jos. Campau Ave. Sewer, $413,836, Sect. 1, Highland Park Arm, $493,903; W. Porath, 1410 West Grand Blvd., 3rd Ave. Sewer, $51,866; R. D. Baker, 1631 Elmhurst Ave., Six Mile Rd. Sewer, $66,366; Detroit Contg. Co., 827 Ford Bldg., Lateral 3318, $20,933, Lateral 3319, $14,129, Lateral 3320, $13,346, Lateral 3478, $8,055, Lateral 3496, $5,212, Lateral 3498, $5,308; Liberty Constr. Co., 36 State St., Lateral 3420, $3,830; A. Rossi, 1778 East Grand Blvd., Lateral 3468, $9,999; Gustin & Co., McLean Ave., Lateral 3497, $3,022. Noted Aug. 18.

★Ia., Dubuque—City let contract building 12-42 in. sewers in Lincoln and Ann Sts., to Even-Uhlrich-Stoner Co., Dubuque. About $60,000.

★Ia., Indianola—City let contract building 2 trickling filters, 2 sludge beds, changing septic tanks, etc., involving 2,600 cu.yd. excav., 275 cu.yd. rein.-con. and 1,200 cu.yd. filter stone, to W. B Carter, United Bank Bldg., Sioux City, $37,598. Noted July 28.

★Mo., Maplewood—City let contract laying sewers and watermains in various streets, to J. F. Ansbro, Wainwright Bldg., St. Louis. About $40,000. Noted July 21.

Mo., Mexico—City rejected bids building sewage disposal plant and outfall sewers. Black Veach, Interstate Bldg., Kansas City, engrs. Noted Aug. 4.

★Okla., Ada—City let contract laying sewers in Dist. 15, to I. E. Hanson, Ada. About $25,000. Noted Aug. 11.

★Wash., Seattle—Bd. Pub. Wks. let contract building sewers in Findlay St., et al, to Interstate Constr. Co., Thompson Bldg., $25,730. Noted July 28.

Bridges

PROPOSED WORK

N. C., Grifton—State Highway Dept., Raleigh, plans to build 200 ft. rein.-con. bridge over Contentnea Creek, near here, State Project 594, Lenoir and Pitt Counties. About $25,500. C. M. Upham, Raleigh, State highway engr.

Wis., Sheboygan—City, c/o C. U. Boley, City Hall, having plans prepared building steel bascule type and lift bridge on 8th St., 1,000 ft. long, not including approaches, to have concrete substructure, brick paving drive, 2 sidewalks etc. About $200,000. Klug & Smith, Mack Blk., Milwaukee, engr.

Minn., Faribault—Rice Co. having plans prepared for 2 concrete bridges over Cannon River, one to have two 50 ft. spans, and other one 55 ft. span. About $25,000. F. M. Kaisersatt, aud. C. M. Babcock, 920 Guardian Life Bldg., St. Paul, state highway engr.

Kan., Council Groves—F. A. Robbins, clk. Morris Co., rejected bids opened Aug. 10, building three 14 ft. rein.-con. bridges and three 25 ft. through girder span bridges, 20 ft. roadways. About $25,000. J. McKenzie, Council Groves, engr. Noted Aug. 3.

N. D., Fargo—Cass Co. plans to build 130 ft. concrete and steel bridge over Cheyenne River on Red Trail, 5 mi. west of here, Federal Aid project. About $40,000. W. R. Tucker, aud.

Mo., Boonville—Old Trails Bridge Co., c/o T. A. Johnston, pres., having plans prepared building steel span bridge, over Missouri River. About $500,000. Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, engrs.

Tex., San Augustine—San Augustine Co. having plans prepared for 110 ft. steel truss span, 24 ft. wide, concrete abutments, over Atloyac Creek. About $27,500. W. A. French, San Augustine, engr.

Okla., Bartlesville—See "Streets and Roads."

Wash., Pasco—Inter Co. Bridge Co., Central Bldg., Seattle, having plans prepared building 3,236 ft. toll bridge across Columbia River from here to Kennick, 20 ft. roadway, to have two 252 ft. steel spans, cantlever span with two 232 ft. anchor arms, two 126 ft. cantilever arms and 180 ft. suspended span. About $400,000. M. M. Caldwell, 90 Union Bridge Co., Central Bldg., Seattle, ch. engr.

BIDS DESIRED

New Jersey—Until Sept. 7, by State Highway Dept., Broad St. Bank Bldg., Trenton, building bridges 1 and 2 on Route 12, Sect. 5, beginning at Point Pleasant and ending at Washington, Warren Co. About $85,000. C. A. Mead, 790 Broad St., Newark, engr.

N. J., Trenton—Until Sept. 6 (change of date), by Bd. Freeholders Mercer Co., building 375 ft. viaduct, 75 ft. long, on Southard St., involving 500 lb. steel and 1,400 cu.yd. excav., etc. About $200,000. H. Harris, Court House, engr.; advertised in this issue. Noted July 28.

W. Va., Middlebourne—Until Sept. 12, by J. E. Smith, co. clk., constructing one 18 ft. culvert 6 x 8 ft., on Buck Run, Lincoln Dist.; one 45 ft. rein.-con. slab bridge across Sancho Creek at Freelands Crossing, Meade Dist.; one 40 ft. rein.-con. arch bridge across Brush Run, Meade Dist.

O., Columbus—Until Sept. 16, by Comrs. Franklin Co., building 148 ft. bridge over Sciota River on Sandusky St., involving 273 cu.yd. wet and 2,850 cu.yd. dry excav., 422 cu.yd. cyclopean concrete, 113 cu.yd. 1:2:4 concrete and 5,153 lb. steel reinforcements, etc., cost $44,000; 24 ft. concrete bridge, 20 ft. wide, in Jackson Twp., $4,079. C. C. Lattimer, Court House, engr. Noted July 7.

Wis., Genoa Junction—Until Sept. 2, by City, c/o C. Ford, clk., building 80 ft. rein.-con. girder bridge, 25 ft. roadway and two 6 ft. sidewalks. About $25,000. Private plans.

Ia., Muscatine—Until Sept. 7, by Auditor Muscatine Co., constructing 44 box culverts and extensions, one I beam, one circular culvert, one 100 ft. thru truss, one 70 ft., one 50 ft. and one 55 ft. pony truss. F. P. G. Halbfass, co. engr.

Ia., Spencer—Until Aug. 30, by Auditor Clay Co., constructing 18 box culverts and extensions, and three 100 ft. thru truss spans. V. McCown, co. engr.

Kan., Marysville—Until Sept. 1, by A. J. Harvey, clk. Marshall Co., building Gregg Bridge, 40 ft. deck girder; Clear Fork Bridge 60 ft. steel span. About $28,000. R. F. Gallup, Marysville, engr. Noted Aug. 11.

Ont., London—Until Sept. 15, by W. A. McLean, deputy minister, Provincial Highway Dept., Toronto, building 210 ft. steel bridge, 36 ft. wide. About $55,000.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

Conn., Bridgeport—Dept. Pub. Wks. received bids Aug. 16, repairing and strengthening superstructure of Congress St. bridge over Pequonnock River, rein.-con., from T. Stuart & Sons Inc., 222 Pearl St., Newtonville, $38,000; D. O'Connells Sons Co., 480 Hampden St., Holyoke, $38,500; G. M. Bryne, 50 Congress St., Boston, $41,800. Noted June 23.

Conn., New London—City received bids constructing concrete bridge on Crystal Ave. (New London approach to Thames River bridge) from Holbrook Co., Westbrook, $27,607; C. W. Blakeslee & Sons, 58 Waverly St., New Haven, $31,150; Conn. Engr. & Constr. Co., Thayer Bldg., Norwich, $37,000.

★N. J., Pine Brook—State Highway Dept., Broad St. Bank Bldg., Trenton, let contract building bridge, here, to Dover Boiler Wks., 90 E. Dickerson St., Dover. About $65,000.

★Fla., Titusville—Comrs. Brevard Co. let contract building timber approaches and trestle over Indian River to J. G. Powell, Inverness, $57,981; steel draw to Champion Bridge Co., Wilmington, O., $13,726. Noted May 26.

★O., Columbus—Bd. Trustees Ohio University let contract building 340 ft. concrete bridge, over Olentangy River, on University grounds, to N. R. Porterfield, Inc., 411 Federal Bldg., Youngstown, $117,900. Noted July 21.

★Ill., Decatur—City let contract constructing Comford Bridge, to Decatur Bridge Co., East Eldorado St. and Chicago & Illinois Western R.R., $154,886. Noted July 21.

★Ia., Dakotah—Humboldt Co. let contract building 7 I-beams, 1 pony truss and 17 box culverts, to Heman & Wood, Ft. Dodge, $35,694.

★Ia., Hampton—Franklin Co. let contract building 4 bridges, to J. A. Dunkel, Webster City. About $25,000. Noted Aug. 4.

★Ia., Maquoketa—Jackson Co. let contract building two 160 ft. through truss spans, steel on concrete piers and abutments, to J. Anderson & Son, Maquoketa, $34,537.

★Ia., Onawa—Monona Co. let contracts building 1 concrete arch and 1 pony truss, on Primary Rd. 38, to Pickus Eng. & Constr. Co., Sioux City, $15,338; 1 pony truss, 36 box and 2 circular culverts, to Voiles Constr. Co., Turin, $16,300.

★Kan., Topeka—City let contract constructing bridge over Ward Creek on Rooseville St., to F. Luttjahnn, 1122 West 2d St., Topeka. Noted July 28.

★S. D., Belle Fourche—Butte Co. let contract building steel truss bridge over Belle Fourche River on Oak St., to Allied Contractors Co., 404 Peters Trust Bldg., Omaha, Neb. About $29,000. Noted July 21 under South Dakota.

★Missouri—State Highway Dept., Trenton, let contract building two 120 ft. steel span trusses and two 30 ft. I-Beam approach spans, etc., over east fork of Grand River, at Sta. 447 plus 20, on state road from Jamesport to Trenton, Sect. "A," Federal Aid Project 116, Grundy Co., to St. Joseph Structural Steel Co., St. Joseph, $26,824. Noted July 28.

Tex., Palo Pinto—Palo Pinto Co. received bids building 210 ft. bridge, consisting of three 28 ft. concrete girders and 125 ft. steel span, over Palo Pinto River, near Strawn, from Austin Bros. Bridge Co., 1815 Coomb's St., Dallas (S. H. Newton, Weatherford, agt.), $20,314; Tibbetts Constr. Co., Mineral Wells, $21,252; Illinois Steel Bridge Co., Box 352, Dallas, $21,284. Noted Aug. 4.

Dams

PROPOSED WORK

Pa., Phila.—City plans to buid masonry dam to replace wooden one, also power house. Bids will soon be received for test borings. About $750,000. C. E. Davis, City Hall, engr.

Pa., West Chester—Boro plans to build earth dam with concrete core, 380 ft. wide, 18 ft. high, concrete spillway, covering about 14 acres, capacity 22,000,000 gal. Cost to exceed $100,000. B. Franklin, Jr., 1420 Chestnut St., Phila., engr.

Ont., Timmins—Dept. Pub. Wks., Ottawa, soon receives bids building dams at Indian Chutes and Fox Rapids. About $1,500,000. E. D. Lafleur, c/o Dept. Pub. Wks., Ottawa, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Great Barrington—Southern Berkshire Power & Electric Co., Upper Main St., let contract building rein.-con. dam, penstock and addition to brick and concrete power plant, on Housatonic River, Williamsville Sect., to F. T. Ley & Co., Inc., 499 Main St., Springfield, $150,000; rein.-con. dam at plant, to E. D. Ward Co., 82 Foster St., Worcester. $60,000. Noted June 9 under "Miscellaneous."

Railways

PROPOSED WORK

Maine—A. R. Gould, et al., Presque Isle, plan to build railway line through northern Maine from line of Aroostook Valley Ry. at Washburn, to Fronier Lake, Que., Can. Private plans.

California—California Gypsum Corp., 731 Pacific Finance Bldg., Coyote Wells, having plans prepared for 16 mi. narrow gauge railroad. About $200,000. R. W. Waterman, Hotel Clark, Los Angeles, engr.

★Michigan—Detroit United Ry., Interurban Bldg., Detroit, plans to build 1 mi. track on Jos. Campau Ave. through Hamtramck. Work will be done by day labor. About $43,000. J. Kerwin, supt.

Excavation and Dredging

PROPOSED WORK

Fla., St. Augustine—Dredging—City had tentative plans prepared filling in space triangle in shape to provide park area and approaches to new bridge to be built by county over Matanzas River, involving 35,000 cu.yd. earth excav. (to be dredged from river).

BIDS DESIRED

Ia., Oskaloosa—Ditch—Until Sept. 6, by Mahaska Co., building South Skunk River Ditch, Sect. 2 and 3, involving 350,000 cu.yd. excav. R. W. Varlay, co. aud.

Mont., Bozeman—Excavation and Foundation—Until Aug. 29, by State Bd. Examiners, Helena, for excavation and foundation for engineering and shop buildings, at Montana State College Agriculture & Mechanical Arts, here. A. E. McFatridge, secy. F. F. Willson, Bozeman, archt. Noted June 30 under "Buildings."

Ont., Pelee Island—Dredging—Until Sept. 1, by W. Stewart, dredging Curry Marsh. About $25,000. A. Baird, Leamington, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., New York—Dredging—M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., North River, let contract dredging outshore portion of Brooklyn Bridge Impvt., Boro. of Manhattan, Contr. 1694, to New Jersey Shipbuilding & Dredging Corp., foot of 28th St., Bayonne, $31,625. Noted July 21.

Streets and Roads

PROPOSED WORK

N. J., Newton—Bd. Freeholders Sussex Co. plans to improve 1½ mi. road from Franklin to North Church, 18 ft. wide, concrete. W. J. Harden, Newton, engr.

N. J., North Bergen (Weehawken P. O.) —City soon receives bids laying concrete sidewalks, sanitary sewers and paving about 8 blocks, bituminous concrete or granite block. About $100,000. T. Harmon, North Bergen, engr.

North Carolina—State Highway Comn., Raleigh, plans to grade, drain, topsoil and bridge 14.8 mi. State Project 561, Caswell Co., about $118,000; 17 mi. State Project 628, Rockingham Co., $136,000; clear, grub, drain, grade and pave 8 mi. State Project 590, Orange Co., $160,000; pave with concrete or asphalt 1½ mi. road from end Project 55 A to city limits of Charlotte, State Project 589, Mecklenburg Co., $45,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans to grade, drain, bridge and hard surface 9 mi. road, State Project 568, Orange Co., about $270,000, 9.5 mi. road from Elizabeth City toward Sunbury, State Project 613, Pasquotank and Gates Counties, $300,000; drain, grade, bridge and topsoil 4.3 mi. State Project 564, Hyde Co., $32,000; 14.2 mi. State Project 565, Carteret Co., $100,000, 10.1 mi. State Project 566, Bladen Co., $75,000, 21.2 mi. State Project 567 Robeson Co., $160,000, 16 mi. State Project 619 Duplin and Lenois Counties $128,000, 8.3 mi. State Project 574, Craven Co., $60,000; pave with concrete or asphalt 1 mi. State Project 614, Perquimans Co., $30,000; drain and hard surface 10 mi. road from Newbern to Carteret Co. line, State Project 578, Craven Co., $300,000. C. M. Upham, state highway engr.

N. C., Newton—Catawba Co. plans to grade, drain and gravel surface various roads. About $50,000. Engineer to be selected at once.

N. C., Newton—Catawba Co. plans to grade, drain, and pave with concrete, asphalt or other type hard surface, 6 mi. Maiden-Newton Highway. About $180,000. O. Brown, Long Island, chn. Bd. Co. Comrs.

Fla., Clearwater—Pinellas Co. plans to build 14 mi. road from St. Petersburg to point where proposed Gandy Bridge over Old Tampa Bay lands, brick or asphalt block. About $260,000. Engineer not selected.

Fla., Lake Wales—City plans to pave various streets. About $100,000. J. W. Turner, Lakeland, engr.

La., Ruston—Lincoln Parish will sell $700,000 bonds Aug. 29 to improve Dixie Overland and Pershing Highways. S. J. Heard, pres. Police Jury.

Ohio—Dept. Highways & Pub. Wks., Columbus, rejected bids received Aug. 5, grading, building bridges and culverts and paving 0.93 mi. Sect. "F and Wilmot" Navarre-Berlin Rd., Stark Co., also 1.51 mi. Sect. "T" Warren-Sharon Rd., Trumbull Co. Noted Aug. 11.

Michigan—State Highway Dept., Lansing, plans to grade and drain 20 mi. Federal Aid Project 53, Arenac and Ogemaw Counties. F. F. Rodgers, state highway comr.

Mich., St. Clair—City plans to grade and pave Jay St., involving 6,085 sq.yd. concrete, 4,410 lin.ft. concrete curbing and 2,160 cu.yd. earth excav. About $25,000. G. Champe, city engr.

Ill., Christopher—City plans to grade, pave and build storm sewers in 30 blocks of State, Sylvia, Maple and Victor Sts., involving 21,450 cu.yd. earth excav., 34,200 sq.yd. bituminous concrete, 23,896 lin.ft. concrete curb, 6,300 ft. 10-24 in. sewer pipe. About $172,846. C. B. Mautz, Benton, engr. Noted July 7.

Ill., Marion—City having plans prepared pavng various streets in Dist. 18, 30 ft. wide, vitr. brick on concrete base. About $25,000. E. Lewis, Mayor. P. B. Wilson, Marion, engr.

Minn., St. Paul—Ramsey Co. plans to pave 6 mi. highway between here and South St. Paul, including cutoff from Empire to Rich Valley and 2 mi. through South St. Paul. About $150,000. R. R. Godfrey, co. engr.

S. D., Sturgis—City rejected bids opened July 11, paving about 8,000 sq.yd. various streets, concrete. About $28,000. T. H. Johnson, Iowa Bldg., Sioux City, engr.

S. D., Yankton—Yankton Co. soon receives bids grading 15 mi. Meridian Highway. About $40,000. J. D. McCoun, aud. H. H. Corbin, Yankton, engr.

Tex., Austin—G. S. Mathews, judge Travis Co., rejected bids surfacing 9.15 mi. Highway 20, 1 in. bituminous topping, involving 81,110.6 sq.yd. Noted July 7.

Tex., Cameron—Milam Co. having plans prepared clearing, grubbing, grading, surfacing and draining 8.21 mi State Highway 44, involving 43,600 cu.yd. borrow, 24,438 cu.yd. earth roadway and 1,065 cu.yd. structural excav., 700 cu.yd. concrete, 23,200 lb. structural and 51,502 lb. reinforcing steel, 15,388 cu.yd. schist surfacing. Cost $56,875. A. F. Mitchell, co. engr.

Tex., Newton—Newton Co. having plans prepared grading and surfacing Precinct 1, bituminous macadam. Bonds for $200,000. Noted for project. R. A. Booker, Newton, engr.

Tex., Richmond—C. D. Meyers, judge Ft. Bend Co., rejected bids opened Aug. 10, gravel surfacing and bituminous topping 13.01 mi. Highway 36. Noted Aug. 18.

Okla., Bartlesville—Washington Co. election Oct. 4, to vote on $700,000 bonds for improving county highways and constructing bridge across Caney River. N. M. Scott, clk.

Okla., Clinton—Citp having plans prepared surfacing various streets, brick on concrete base. About $180,000. W. A. Shouse, clk. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs.

BIDS DESIRED

Massachusetts—Until Aug. 30, by State Highway Comn., Boston, paving 6,000 ft. highway in Monterey, 18 ft. wide, gravel, about $30,000; 11,000 ft. in Middlefield and Peru, 18 ft. wide, $50,000. A. W. Deane, 413 Statehouse, Boston, engr.

N. Y., Brooklyn—Until Aug. 31, by E. Riegelmann, boro. pres., Boro. Hall, regulating, curbing and paving Bay 22nd St. from 86th St. to Benson Ave., Chester St. from point 269 ft. south of Blake Ave. to point 329 ft. south of Blake Ave. and from Lott to Hegeman Ave., Mansfield Pl. from Ave. L to Ave. M; regulating and paving East 13th St. from Ave. N to Ave. O, East New York Ave. from New York to Albany Aves., Sheridan Ave. from Glenmore to Pitkin Aves., 75th St. from 10th to 11th Aves.; regulating and repaving 6th St. from 8th Ave. to point 225 ft. westerly, permanent asphalt on 6 in. concrete foundation.

N. Y., New York—Until Aug. 30, by H. Bruckner, pres. Bronx Boro., regulating, grading and setting curbs etc., on St. Lawrence Ave. from Westchester Ave. to point 225 ft. north of Watson Ave., and Fieldstone Rd from West 261st to West 262nd Sts.; building sewers in West Kingsbridge Rd. between existing sewer west of Webb Ave. and Webb Ave., and in Webb Ave. between West Kingsbridge Rd., etc.

New Jersey—Until Sept. 6, by State Highway Comn., Broad St. Bank Bldg., Trenton, reshaping and paving Route 8, Job Orders 801 and 802, from Montclair to Essex-Passaic Co. line, Essex Co., Warrenite bitulithic. A. W. Muir, Broad St. Bank Bldg., supt. of maintenance.

Pa., New Castle—Until Aug. 5, by City, paving 6,200 sq.yd. State St., brick on 6 in. concrete foundation, concrete or stone curb and asphalt filler. F. F. Miller, city engr.

Miss., Vicksburg—Until Sept. 6, by Highway Comrs. Warren Co., reconstructing and resurfacing 10.8 mi. state highway from Two Mile Bridge over Alabama & Vicksburg R.R. to bridge over Big Black River. Bids will be received on (a) single surface treatment with bituminous materials, (b) double surface treatment with bituminous materials. About $65,000. G. Williamson, secy.

Louisiana—Until Aug. 29, by State Highway Dept., 322 Maison Blanche Bldg., New Orleans grading and draining 25.42 mi. Huma-Morgan Highway, Terrebonne Parish. D. Buie, state highway engr.

Louisiana—Until Sept. 12, by State Highway Comn., Room, 332, Maison Blanche Annex, New Orleans, improving 3.57 mi. Rd. D. Shuteston-Church Point Highway, St. Landry Parish, involving 13,750 cu.yd. earth excav., 177 cy.yd. Class A concrete, 16,698 lb. reinforcing steel and 4,365 cu.yd. gravel hauling. D. Buie, state highway engr.

O., Cleveland—Until Sept. 3, by Comrs. Cuyahoga Co., grading, draining and paving Hall Rd. from Coe Ridge to North Ridge Rds. About $37,841. W. A. Stinchcomb, Court House, engr.

O., Oakwood (Dayton P. O.) — Until Sept. 1, by Comrs. Montgomery Co. (Dayton), paving 2,300 ft. Far Hills Ave., involving 7,800 sq.yd. vitr. brick, wood block or concrete. About $39,000. P. S. Bookwalter, Dayton, co. surv.

Mich., Bellaire—Until Sept. 2, by Bd. Rd. Comrs. Antrim Co., grading, draining and surfacing State Trunk Line Rd. 88-1, Sect. B, involving 9,724 cu.yd. earth excav. and 33,932 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Hillsdale—Until Sept. 2, by State Highway Dept., at office Bd. Rd. Comrs. Hillsdale and Calhoun Counties (Hillsdale), grading, draining and surfacing 11.423 mi. Federal Aid Project 37, 1.93 mi. with concrete or bituminous concrete and 9.493 mi. with gravel, involving 20,353 sq.yd. concrete or bituminous concrete, 89,097 sq.yd. gravel, 35,613 cu.yd. earth excav., etc. F. F. Rodgers, Lansing, state highway comr.

Mich., Saginaw—Until Aug. 30, by State Highway Dept., at office Bd. Rd. Comrs. Saginaw Co., grading, draining and surfacing 2.064 mi. road in Assessment Dist. 235, involving 6,900 cu.yd. earth excav., 19,369 sq.yd. bituminous macadam or gravel, etc. F. F. Rodgers, Lansing, state highway comr.

Ill., Elgin—Until Aug. 30, by H. L. Zock, city clk., paving various streets, brick and asphalt on concrete base. About $65,000. M. H. Brightman, City Hall, engr. Noted June 9.

Ill., Eureka—Until Aug. 30, by Woodford Co., c/o A. B. Hurd, supt., grading, draining and surfacing various county roads in El Paso, bituminous macadam. About $25,000.

Ill., West Frankfort—Until Aug. 30, by city, c/o L. Coleman, chn., paving various streets, brick and asphalt on concrete base. About $130,000. E. A. Cox, West Frankfort, engr. Noted July 21.

Ia., Allison—Until Aug. 31, by Auditor Butler Co., grading and draining 11.42 mi. Primary Rd. Project 71, north and south of Greene, north of Parkersburg, and east of here, involving 110,132 cu.yd. earth and 2,134 cu.yd. loose rock excav., 83,927 lin ft. 6 in., 9,800 lin. ft. 8 in tile, 12 tile intakes.

Ia., Grundy Center — Until Sept. 6, by Grundy Co., graveling primary roads radiating out of here. Project 163. About $25,000. E. A. Crary, co. engr.

Ia., Muscatine—Until Sept. 7, by Auditor Muscatine Co., grading draining and gravel surfacing primary road between Muscatine and Louisa Co. line; draining primary road from Sweetland Center to Scott Co. line and primary road east and west of Wilton Junction, Federal Aid Project 87, involving 7,810 cu.yd. clay-gravel surfacing, 38,261 cu.yd. earth excav., etc.

Ia., Spencer—Until Aug. 30, by Clay Co., c/o A. W. Chamberlain, aud., grading and draining 6 mi. roads, east and west of Peterson, involving 126,645 cu.yd. excav., 12,150 lin.ft. 5-6 in. tile and 7 intakes. About $30,000. W. V. McCoun, Spencer, engr.

Minn., Aitkin—Until Sept. 7, by Aitkin Co., improving State Rd. 3, Job 2101, involving 6 acres clearing, 5 acres grubbing, 47,602 cu.yd. excav., 132,680 cu.yd. overhaul, etc. About $25,000.

Minn., Slayton—Until Sept. 6, by City, c/o B. Tietema, clk., paving 15,000 sq.yd. various streets. About $50,000. J. W. Shaffer & Co., 916 New York Life Bldg., Minneapolis, engrs.

Kan., Junction City—Until Sept. 16, by Bd. Comrs. Geary Co., resurfacing Golden Belt Highway, Federal Aid Project 91, brick or asphaltic concrete. About $30,000. P. Martin, co. engr.

S. D., Hot Springs—Until Sept. 6, by City, grading, paving and guttering various streets, involving 30,246 sq.yd. paving, 8,987 cu.yd. excav., 12,569 lin.ft. combined curb and gutter, 1,043 lin.ft. straight curb, 900 lin.ft. headers. Bids on concrete, Portland cement, bituminous concrete, and vitr. brick will be considered.

Tex., Clarksville—Until Sept. 19, by R. Goodwin, city clk., paving 50 blocks, 6 in plain concrete, two course rein.-con., or asphaltic concrete, involving 21,635 lin.ft. concrete curbing, 168 lin.ft. double gutter, 7,870 cu.yd. earth and 296 cu.yd. loose rock excav., 32,220 sq.yd. paving, etc. E. T. Archer & Co., 609 New England Bldg., Kansas City, Mo., engrs.

Col., Denver—Until Sept. 1, by City Council, paving 22 blocks 7th Ave. Dist., asphalt. About $46,537. J. B. Hunter, city engr.

California—Until Sept. 6, by State Highway Comn., 515 Forum Bldg., Sacramento, paving with concrete 9.4 mi. highway between West boundary and 1 mi. north of Keystone, and 3.5 mi. between Jamestown and Sonora, Tuolumne Co. A. B. Fletcher, state highway engr.

Streets and Roads (Continued)

Que., Lachute—Until Sept. 1, by A. Tremblay, mayor, building macadam roadways and 9,000 lin.ft. concrete sidewalks on Barron Ave., Bethany, Main, Found, Princess and Chatham Sts. About $25,000. A. Sarsfield, c/o Mayor, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Massachusetts—State Highway Comn., Boston, let contract paving 8,600 ft. state highway in Littleton, 18 ft. wide, bituminous macadam, to T. J. McCue, Watertown, $47,339. Noted Aug. 18.

Massachusetts—State Highway Comn., Boston, reecived bids Aug. 16 paving 11,000 ft. bituminous road in Holden, 18 ft. wide, from G. E. Greenough, South Acton, $52,330; DeStafano Bros., East Boston, $52,390; Hanscom Const. Co., 70 Kilby St., Boston, $52,970.

Mass., Pittsfield—City received bids paving (1) Fenn St., from 4th to East Sts., (2) Francis Ave. from Columbus Ave. to Summer St., both cement concrete, (3) Maplewood Ave., brick, from Molloy & Niggard, Springside Ave., (1) $14,247, (2) $4,746, (3) $17,340; D. J. Walsh, 107 Fenn St., (1) $14,253, (2) $4,671, (3) $17,980. A. B. Farnham, City Hall, engr. Noted May 26.

★Connecticut—C. J. Bennett, state highway comr., 240 Farmington Ave., Hartford, let contract paving ½ mi. Hall Blvd., Bloomfield, waterbound macadam, to R. G. Miller, Maple Ave., Bloomfield, $11,000; 20,600 ft. Danielson Rd., Killingly, 3 in. bituminous macadam on 7 in. broken stone base, and 1,970 ft. Thames St., Groton, concrete, to F. D. Miller Co., Poquetanuck St., Norwich, $136,000 and $19,000 respectively. Noted July 28.

★Conn., New Haven—Bureau of Eng. let contract paving Greenwood St. from George St. to Sylvan Ave., bituminous macadam, concrete gutters and curbs, involving 6,000 sq.yds. curbing, 1,240 sq.yds. gutter and 5,160 sq.yds. paving, to R. D. Daley Co., 6 Church St., $10,149; Court St. from State St. R.R. bridge, granite block on concrete base, 400 sq.yds. paving, 175 lin.ft. curbing to Connecticut Nat'l. Pavements, Inc., 173 Orange St., $2,658; section of Chapel St., 4,540 sq.yds. batch concrete, Temple St. from Trumbell St., to R.R. bridge 1,815-20 sq.yds. asphalt paving 800 sq.yds. concrete curbing and 300 cu.yds. earth excav. to C. W. Blakeslee & Sons, 58 Waverly St., $18,949 and $4,515 respectively. Noted July 21.

★New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, let contract improving 4.87 mi. Angelica-Canaseraga, Part 2, Highway 8060, Allegany Co., to H. W. Patterson, Belmont, $166,306; 4.88 mi. Angelica-Canaseraga, Part 3, Highway 8061, Allegany Co., to Cannova & Giordano, Lodi, N. J., $176,734; 6.76 mi. Genoa-Locke, Highway 8062, Cayuga Co., to P. D. Conley Constr. Co., Inc., Ithaca, $208,274; 3.69 mi. Athol Springs-Orchard Park, Highway 1586, Erie Co., to Rossney Contg. Corp., 37 Heath St., Buffalo, $122,571; 2.36 mi. Phoenix-Mexico, Part 3, Highway 8068, Oswego Co., to Scott Bros., Arlington Blk., Rome, $57,851; reconstructing 1.34 mi. Rd. 5312, Rep. Contr. 1329, Allegany Co., to Greenfield Constr. Co., 89 Main St., Hornell, $42,859; 0.88 mi. Rd. 1378, Rep. Contr. 1331, Chemung Co., to J. W. Gurnett, Watkins, $24,729; 1.14 mi. Rd. 5103, Rep. Contr. 3012, Columbia Co., to Troy Paving Co., Troy, $39,529; 1 mi. Rd. 5253, Rep. Contr. 1330, Steuben Co., to W. L. Collins, Hornell, $14,938; 0.60 mi. Rd. 17, Rep. Contr. 1304, Westchester Co., to Malloy & Murray Contg. Co., Yonkers, $33,639. Noted July 28.

New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, opened bids Aug. 16, improving 1.32 mi. Fredonia Village: West Main St., Highway 5664, Chautauqua Co., from E. J. Bailey, Brockton, $80,975; J. J. Hart, 492 Frank Bldg., Pittsburgh, $82,017, G. Metzger, Emporium, Pa., $82,221; 10.58 mi. Cherry Valley-Sharon Springs; Sharon Springs-Canajoharie Highway 8064, Otsego and Schoharie Co., from M. H. Ripton, 208 Carter Bldg., Rochester, $339,269, Stento & Serafini, Binghamton, $347,946, L. H. Brotsch, 39 State St., Rochester, $348,863; 4.39 mi. Grand Gorge-Breakabeen, Part 4, Highway 8070, Schoharie Co., from A. F. McConville, Ogdensburgh, $159,551, R. Hopkins, 824 2nd Ave., Troy, $161,059, F. E. Ellis, Melrose, Mass., $166,146; 7.13 mi. Port Jefferson-Riverhead, Part 3, Highway 8066, Suffolk Co., from World Industrials Corp., 522 5th Ave., New York City, $234,907, H. J. Mullen Contg. Co., Inc., Fulton St., Jamaica, $260,704, Brooklyn-Manhattan Contg. Corp., Brooklyn, $262,100; reconstructing 3.37 mi. Rd. 399, Rep. Contr. 3007, Monroe Co., from F. F. Murray, Leroy, $74,219, F. W. and J. J. Crouch, 84 Bronson Ave., Rochester, $75,843, A. A. Howard, Fairport, $76,370; 4.51 mi. Rds. 105 and 1029, Rep. Contr. 3026, Schenectady Co., from N. J. Balestrieri, Shelburne Falls, Mass., $77,218, L. Mayersohn, 89 Manning Blvd., Albany, $79,275, Malloy Constr. Co., 434 State St., Schenectady, $81,898. Noted July 28.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, 68 Hunterspoint Ave., let contract regulating and curbing, etc. Manly St., etc., to C. Kurth, 9519-126th St., Richmond Hill, $5,274; curbing, recurbing and paving 7th Ave., to Cleveland Trinidad Paving Co., Flushing, $25,682; regulating and grading Van Pelt Ave., to Contractors Serv. Corp., 288 Jackson St., Greenpoint, $4,681; Fiske Ave., etc., to Casalino Contg. Co., 299 Withers St., Brooklyn, $15,417; 80th St., etc., to H. E. Kordes, 2557 Cooper St., Brooklyn, $33,987; Cherry Ave., etc., to Tuohy & Upton, Inc., 98 Main St., Flushing, $3,435; regulating and repaving 7th Ave., to H. J. Mullen Contg. Co., Fulton St., Jamaica, $79,478. Noted July 28.

★N. Y., New York—H. Bruckner, pres. Bronx Boro., let contract regulating, grading, setting curb, laying sidewalks, building inlets, etc., on Clark Pl., etc., to C. D. Beckwith, Inc., 301 West 108th St., $3,290; building sewer in West Kingsbridge Rd., between existing sewer east of Reservoir Ave. and Reservoir Ave., etc., to M. Delbalso, 660 East 221st St., $124,069. Noted Aug. 18.

N. Y., New York — H. Bruckner, pres. Bronx Boro., Municipal Bldg., opened bids Aug. 17, paving (1) Findlay Ave., (2) East 170th St., sheet asphalt; repaving (3) East 171st St., granite blocks on concrete foundation; regulating and grading, etc., (4) East 156th St., (5) East 149th St., (6) Ford St., (7) Spencer Ave., (8) West 188th St.; building sewers and appurtenances in (9) Pelham Parkway North, (10) Osborne Pl.; protecting with rock fill outlet of sewer at (11) White Plains Ave., etc., from

Uvalde Asphalt Paving Co., 1 Bway., (1) $5,595, (2) $29,100.

Cleveland Trinidad Paving Co., Flushing, (1) $7,803, (2) $29,130.

C. D. Beckwith, Inc., 301 West 108th St., (1) $7,633, (2) $29,100.

Asphalt Constr. Co., 2197 Madison Ave., (1) $7,992, (2) $28,512.

Brusstar Constr. Co., Inc., Harlem River and 150th St., (1) $8,438, (2) $29,082.

Leonard Paving Co., 233 Bway., (3) $7,635.

Burnside Contg. Co., 270 Burnside Ave., (3) $7,779, (6) $5,935.

C. Helbock Co., 633 Wales Ave., (3) $8,058.

Anita Constr. Co., 2975 Marion Ave., (9) $53,838, (10) $9,136, (11) $3,125.

C. W. McDonald, West 10th St., Bensonhurst, (9) $58,898.

J. L. Sigretto & Co., (9) $59,772.

I. F. Cavaluzzo, 1538 Walton Ave., (4) $5,890.

F. Spadaro, (4) $7,871.

Testa Eng. & Contg. Co., (4) $7,892, (7) $14,708, (8) $2,034.

P. J. Kearns Contg. Co., 2306 Creston Ave., (5) $12,747, (8) $2,220.

Spadaro Contg. Co., 827 East 217th St., (7) $11,162.

Estates Contg. Co., (7) $15,005, (10) $8,790.

Fordham Contg. Co., (10) $9,127.

J. V. Timoney, (8) $3,470.

Noted Aug. 11.

★N. Y., New York—H. H. Curran, pres. Manhattan Boro, let contract widening and repaving 181st St. from Amsterdam to St. Nicholas Aves., asphalt block on concrete foundation, to Regan Towers Co., 127 West 121st St., $24,550. Noted Aug. Aug. 4.

★N. Y., New York—Park Bd. at office of Dept. Parks, Municipal Bldg., let contract repaving West Drive System south of 102nd St. in Central Park, sheet asphalt, to W. J. Fitzgerald, 547 West 45th St., $58,180. Noted Aug. 4.

★N. Y., Syracuse—City let contract paving Allen St. from East Genesee St. to Euclid Ave., asphalt, to J. H. Gallup, Union Bldg., $41,451. Noted Aug. 4.

★New Jersey—State Highway Dept., Broad St. Bank Bldg., Trenton, let contract building 2.9 mi. Route 5, Sect. 4 from Madison to Chatham, involving 34,694 sq.yd. bituminous concrete and 36,951 sq.yds. cement concrete foundation, to O. G. Julian, 200 Bway., New York City, cost 89% of engineers estimate ($247,315). Noted July 28.

★Pennsylvania—State Highway Dept., Harrisburg, let contract building Route 139, Dauphin Co., to Bennett & Randall, Lebanon, $56,191; Route 322, Lackawanna Co., to M. Rosato & Son Co., 1145 Sloan Ave., Scranton, $44,185; Routes 11 and 177, Luzerne Co., to Newmeyer Bros., 1416 East 4th St., Bethlehem, $77,613; Route 240, Lycoming Co., to Juniata Co., Empire Bldg., Phila., $141,008; Route 268, Washington Co., to Corrado & Galiardi, Colonial Natl. Bank Bldg., Connellsville, $62,223; Route 82, Mercer Co., to Brackenridge Sand & Gravel Co., Brackenridge, $15,382; Route 276, Cambria Co., to Trevorrow-Grissey Constr. Co., 15 Darby St., Johnstown, $98,452; Application 1460, Carbon Co., to G. H. Hardner, Lentz Blvd., Allentown, $188,188; Application 1461, Carbon Co., to Peconco Eng. & Contg. Corp., 1170 Bway., New York City, $175,681; Route 107, Centre Co., to G. I. Thompson Co., Clearfield, $69,149; Route 73, Butler Co., to N. J. Boyer, Slippery Rock, $49,671; Route 228, Allegheny Co., to McGrady Bros. Co., 308 6th Ave., Braddock, $202,716; Route 156, Bucks Co., to Peconco Eng. & Contg. Co., 1170 Bway., New York City, $293,194; Route 265, Lawrence Co., to J. B. Reed Co., 550 Bway., McKees Rocks, $60,653; Route 64, Jefferson Co., to L. G. Hileman Constr. Co., 217 First Natl. Bank Bldg., New Kensington, $30,410. Noted Aug. 11.

★Pa., Phila.—City let contracts to Union Paving Co., 34th and Spruce Sts., paving Carpenter, 22nd and 24th Sts., cost $39,549, 17th, Porter and Chadwick Sts., $19,819, 21st St., $12,661, 23rd, 26th, 28th and 29th Sts., $55,389; Barber Asphalt Paving Co., Land Title Bldg., Chelten Ave., $21,887, Lehigh Ave., $37,183, Susquehanna Ave., $20,910.

Pa., Phila.—City opened bids repaving (1) 15th St., (2) Frankford Ave., (3) Columbia Ave., (4) Pine St., (5) Spruce St., (6) Girard Ave., (7) Kensington and Frankford Aves., (8) Lombard St. from Delaware to Broad Sts., (9) Lombard St. from Broad to 27th Sts., (10) Sansom St., (11) 2nd St., (12) 9th St., (13) Wildey St., (14) Snyder Ave., (15) Poplar St., Girard, South College on West College Aves., (16) Pearl St., (17) Upland St., (18) Lawrence St., from T. L. Flannigan, 1204 Richmond St., $159,112, (2) $32,969, (3) $48,395, (4) $45,453, (5) $21,444, (6) $56,783, (7) $33,830, (8) $77,473, (9) $54,138, (15) $85,627; Eastern Paving Co., Colonial Trust Bldg., (1) $61,873, (2) $35,673, (16) $6,725, (17) $12,909, (18) $4,962; F. T. Buckin, Kensington and Deal Sts., (1) $60,573, (2) $34,503; Fish-Rutherford Co., Inc., Real Estate Trust Bldg., (3) $43,104, (7) $33,980, (10) $18,962, (12) $18,975, (14) $18,963, (15) $80,226; M. McCrudden, Real Estate Trust Bldg., (3) $45,651, (7) $35,956, (10) $18,766, (12) $19,653; Citroni & Mezzola, Ocean City, N. J., (4) $43,370, (5) $23,199, (11) $46,399, (13) $8,947, (14) $15,444; J. Devlin, Jr., Hancock and Thompson Sts., (4) $35,378, (5) $24,693, (12) $18,846; Union Paving Co., 34th and Spruce Sts., (6) $53,589, (8) $75,350, (9) $53,439, (16) $6,876; Cunningham & Murray, 1345 Arch St., (6) $53,965, (8) $75,893, (10) $16,741, (13) $8,858; Ryan Constr. Co., Real Estate Trust Bldg., (9) $53,969, (11) $47,562, (14) $17,068; Acchione & Canuso, 763 South 12th St., (11) $47,892; United Paving Corp., Denkla Bldg., (13) $8,935; F. Curran, 3023 Richmond St., (15) $83,743; Barber Asphalt Paving Co., Land Title Bldg., (16) $5,681, (17) $11,367, (18) $4,873; Mack Paving & Constr. Co., Nicetown Lane and C St., (18) $5,183.

★Maryland—State Highway Comn., Garrett Bldg., Baltimore, let contract paving 2 mi. state highway in Montgomery Co., Contr. M-27, to Christhill & Ensey, Munsey Bldg., Baltimore, $57,194; 5 mi. in St. Marys Co., Contr. SM-15, to W. E. Allen, 1465 Columbia Ave., Baltimore, $39,486; 1.5 mi. in Dorchester Co., Contr. D-24, to D. Marine Co., Title Annex Bldg., Baltimore, $43,442; 1 mi. and 1.37 mi. in Cecil Co., Contrs. CE-36 and CE-25, to Broad Creek Contg. Co., Elkton, $28,553 and $37,221 respectively. Noted July 28.

D. C., Washington—Dist. Comrs., 509 Dist. Bldg., received bids grading (1) Monroe St., (2) 17th St., S. E. (3) Vista St. (4) Dorsett Pl. (5) Carolina Pl. (6) Kalorama Rd. (7) Ohio Ave. (8) Connecticut Ave., from W. F. Brenizer Co., 101 New York Ave., N. E., (1) $0.60 per cu.yd. (2) $0.50 (3) $0.40 (4) $0.35 (5) $0.50 (6) $0.40 (7) $0.40.

G. W. Gummel, Wash., (1) $0.32 (7) $0.35.

G. B. Mullen, 3303-11th St., N. W., (1) $0.44 (3) $0.57 (4) 0.89 (5) $1.24 (6) $0.57 (7) $0.44 (8) $0.43.

W. F. Cush, 3rd and R Sts., N. E., (1) $0.49 (2) $0.55 (3) $0.64 (4) $0.90 (5) $0.90 (6) $0.69 (7) $0.58 (8) $0.85.

Allen & Co., 1421-34th St., N. W., (1)

Streets and Roads (Continued)

$0.45 (2) $0.85 (3) $0.445 (4) $0.65 (5) $0.65 (7) $0.4475.

Cranford Paving Co., 2620 E St., (1) $0.49 (2) $0.58 (3) $0.56 (4) $0.67 (5) $0.67 (6) $0.57 (7) $0.53 (8) $0.90.

G. W. Hyman, 1116 Morse St., S. E., (1) $0.64 (2) $0.69 (3) $0.58 (4) $0.90 (7) $0.54 (8) $0.39.

Corson & Gruman, (4) $1.24 (5) $1.24. Noted Aug. 11.

★**W. Va., Mannington**—City let contract paving High and Main Sts., to J. J. Allen, Mannington, $32,114.

★**Fla., Titusville**—Brevard Co. let contract surfacing 15 mi. road from Dixie Highway to St. Johns River, 9 ft. wide, asphalt on rock base, 3 ft. clay shoulder, to E. P. Maule, Ojus, $45,670. Noted May 26.

★**Fla., Titusville**—City let contract surfacing 8 mi. road from Orsino to Indian River and Ocean, asphalt on rock base, to Florida Eng. Co., Oviedo, $26,980.

★**Miss., Vicksburg**—Highway Comn. Warren Co. let contract reconstructing and resurfacing 6 of Novaculite based roads in county, single surface treatment with bituminous materials, to Merrill Rd. Impvt. Co., James Bldg., Chattanooga, Tenn., $65,228.

★**Ohio**—Dept. Highways & Pub. Wks., Columbus, let contract grading, building bridges and culverts and paving 4.15 mi. Sect. "D" Hamilton-Middletown Rd., Butler Co., sheet asphalt, to Andrews Asphalt Paving Co., Rentschler Bldg., Hamilton, $116,918. Noted Aug. 11.

★**O., Cleveland**—City let contract paving Chester Ave., to W. E. McHugh, c/o Pavers Exch., Society for Savings Bldg., $57,379; East 119th St., to River Constr. Co., Schofield Bldg., $34,269. Noted July 7 and Aug. 18.

★**O., Cleveland**—Comrs. Cuyahoga Co. let contract improving Prospect Rd. 3 involving 20,000 cu.yd. earth excav., 30,000 sq.yd. waterbound macadam and 4,200 sq.yd. 6 in. concrete base, etc., to Nydecker, Pursgrave & Burke, 8101 Howard Ave., $112,840.

★**O., Cleveland**—Cmrs. Cuyahoga Co. let contract improving Drake and Hunt Rds., to Ohio Contg. Co., Elyria, $112,140. Noted Aug. 18.

★**O., Cleveland**—Riverside Cemetery let contract grading and paving cemetery, asphalt, to Cleveland Trinidad Paving Co., The Arcade. About $55,000. Noted Aug. 4.

★**O., Dennison**—City let contract paving 3rd, 2nd, 5th and Center Sts., asphalt, to Federal Asphalt Paving Co., 125 Main St., Hamilton, $51,870.

O., Garfield Heights (Cleveland P. O.)—Village received bids paving (1) Thornhurst Ave., (2) Warner Rd., involving 34,860 sq. ft. asphalt, from Cleveland Trinidad Paving Co., The Arcade, Cleveland, (1) $17,010; Enterprise Paving & Constr. Co., 8444 Bway., Cleveland, (1) $18,858, (2) $9,748.

★**Mich., Crystal Falls**—State Highway Dept. at office Bd. Rd. Comrs. Iron Co., let contract grading, draining and surfacing 1.413 mi. State Trunk Line Rd. 12-34, to Counihan, Barnum & Probsch, Iron River, $43,163.

★**Mich., Detroit**—City let contracts shaping and paving (1) Devereaux and (2) Dane Sts., and following avenues, (3) Canton, (4) Cascade, (5) Farnsworth, (6) Hillger, (7) Hamilton, (8) Kerwin, (9) St. Jean, (10) Eastlawn, (11) Fishcher, (12) Gladstone, (13) Hazelwood, (14) Lumley, (15) Lambert, (16) Maxwell, (17) Manistique, (18) Quincy, to Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $14,678, (2) $29,560, (3) $35,090, (4) $59,345, (5) $8,635, (6) $23,640, (7) $32 900, (8) $36,632, (9) $44,968, (10) $36,063, (11) $38,581, (12) $15,896, (13) $32,349, (14) $28,982, (15) $9,189, (16) $29,215, (17) $21,625, (18) $14,721; (19) Ford, (20) Tuxedo, (21) Wilson, (22) Webb, (23) Cortland, (24) Clairmount, to Cleveland Trinidad Paving Co., 402 Hammond Bldg., (19) $14,021, (20) $22,957, (21) $5,676, (22) $49,230, (23) $12,519, (24) $29,280; paving (25) Grand River Ave., and surfacing (26) McGraw Ave. from Blvd. to Warren Aves., (27) McGraw Ave. from Junction to Livernois Aves., (28) Moran Ave., (29) Palmer Ave., (30) Livernois Ave., to Detroit Asphalt Paving Co., 20 McGraw Bldg., (25) $191,674, (26) $10,065, (27) $12 810, (28) $8,325, (29) $5,180, (30) $36,600. Noted Aug. 18.

Mich., Detroit—City received bids paving following avenues, (1) Mt. Elliott, (2) Calahan, (3) Grand River, (4) Wildmere, (5) Wales, (6) Waldo, (7) Yellowstone, (8) Yosemite, (9) Lane, from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $145,321, (2) $29,533, (3) $103,306, (4) $7,503, (5) $8,271, (6) $42,776, (7) $42,380, (8) $46,704, (9) $21,765; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $149,484, (2) $30,152, (3) $106,570, (4) $7,450, (5) $8,398, (6) $44,179 ,(7) $43,038, (8) $47,423, (9) $22,165.

★**Mich., Leland**—State Highway Dept., at office Bd. Rd. Comrs. Leelanau Co., let contract grading, draining and surfacing State Trunk Line Rd. 25-7, involving 23,485 cu.yd. earth excav., 18,712 sq.yd. gravel, etc., to Leelanau Co. Rd. Comn., Cedar, $26,930.

★**Mich., Sandusky**—State Highway Dept., at office Bd. Rd. Comrs Sanilac Co., let contract to E. L. McIntyre, 621 Navahoe St., Detroit, grading, draining and surfacing 6.113 mi. Federal Aid Project 51, Sect. B, grading, $20 per sq.yd.; earth excav., $0.70; 77.2 cu.yd. 1:2:4, 10 cu.yd. 1:2½:5, and 246.4 cu.yd. 1:3:6 concrete, $21, $20 and $20 respectively; reinforcing steel, $0.07; gravel, $0.801; total, $63,996. Noted July 28.

★**Mich., Sault Ste. Marie**—State Highway Dept., at office Bd. Rd. Comrs. Chippewa Co., let contract grading, draining and surfacing 3.441 mi. State Trunk Line Rd. 48-3, to E. Brown, Charles, $39,518. Noted Aug. 4 .

★**Mich., Sault Ste. Marie**—State Highway Dept., at office Bd. Rd. Comrs. Chippewa Co., let contract grading, draining and surfacing 4.777 mi. State Trunk Line Rd. 48-5, Sect. B, to N. Bye, 1015 Tweed St.; work involves 22,211 cu.yd. earth excav., at $0.50 per cu.yd.; 107.7 cu.yd. 1:2:4, 195.8 cu.yd. 1:2½:5 and 51.8 cu.yd. 1:3:6 concrete, $26, $25 and $24 respectively; 11,241 lb. reinforcing steel, $0.09; 344,717 cu.yd. waterbound macadam, $1.22, etc., total $76,073. Noted Aug. 4.

Ill., Chicago—Bd. Local Impvts., 207 City Hall, received bids paving, (1) Alley-Polk St., Taylor St., Paulina St., Hermitage Ave., 1,830 ft. concrete curb, 1,440 sq.yd. vitr. brick on 6 in. concrete base, (2) Alley-West End Ave., Washington Blvd., Lavergne Ave., Le Clair Ave., 1,300 sq.ft. concrete, (3) Alley-67th Pl., 68th St., Stony Island Ave., Blackstone Ave., 1,250 sq.yd. 7 in. concrete, (4) Alley-68th Pl., 69th St., East End Ave., Ridgeland Ave., 1,040 sq.yd. 7 in. concrete, (5) Alley-Glendale Ave., Norwood Ave., Greenvew St., Clark St., 1,030 sq.yd. 7 in. concrete, (6) Augusta St., Milwaukee Ave. to Elston Ave., 1,800 ft. 8 in. granite curb, 1,200 cu.yd. excav., 3,000 sq.yd. asphalt on 6 in. concrete base, etc., (7) Ellis Ave., 55th to 59th Sts., 4,360 ft. 8 in. granite curb, 2,500 cu.yd. excav., 8,960 sq.yd. asphalt on 6 in. concrete base, etc., (8) 43rd St., Western to Kedzie Aves., 10,500 ft. 8 in. granite curb, 7,800 cu.yd. excav., 18,200 sq.yd. asphalt, (9) Turner Ave., 55th to 59th Sts., 20,740 ft. concrete curb., 9,300 cu.yd. excav., 33,750 sq.yd. asphalt on 6 in. concrete base, etc., (10) Troy St., Archer Ave. to 47th St., 11,650 ft. concrete curb, 4,500 cu.yd. excav., 18,700 sq.yd. asphalt on 6 in. concrete base, (11) Trumbull Ave., Foster to Balmoral Aves., 12,900 ft. concrete curb, 9,000 cu.yd. excav., 20,800 sq.yd. asphalt on 6 in. concrete base, (12) Kilpatrick Ave., Belmont to Addison Sts., 10,000 ft. concrete curb, 5,500 cu.yd. excav., 15,800 sq yd. asphalt on 6 in. concrete base, (13) Talman Ave., 51st to 55th Sts., 13,900 ft. concrete curb, 8,500 cu.yd. excav., 22,600 sq ft. asphalt on 6 in. concrete base, (14) Vernon Ave., 77th to 79th Sts., 10,100 ft. concrete curb, 7,000 cu.yd. excav., 16,140 sq.yd. asphalt on 6 in. concrete base, (15) Leamington Ave., Grand Ave. to Belden St., 46,800 ft. concrete curb, 23,600 cu.yd. excav., 64,400 sq.yd. on 6 in. concrete base, etc.

From J. Dillon Co., 129 West Washington St., (1) $12,554, (2) $6,402, (4) $4,616, (5) $4,539.

P. J. O'Brien Co., 29 South La Salle St., (1) $12,740, (3) $5,395, (4) $4,567, (5) $4,583.

Central Paving Co., 179 West Washington St., (1) $12,673.

J. A. Ross & Co., 4561 Armitage Ave., (2) $6,324, (3) $5,445, (4) $4,611.

W. P. Cagney, 133 West Washington St., (2) $6,350, (3) $5,436, (5) $4,593

White Paving Co., 17 North La Salle St., (6) $18,672, (8) $114,341, (11) $133,426, (12) $99,902, (14) $98,772, (15) $383,937.

R. F. Conway Co., 133 West Washington St., (6) $18,806, (7) $54,052, (8) $111,634, (9) $181,633, (10) $100,199, (11) $134,221, (12) $100,328, (13) $130,148, (14) $95,635, (15) $386,749.

A. Todd, 133 West Washington St., (6) $19,650, (7) $53,691, (9) $181,376, (10) $101,952, (13) $133,190, (15) $398,825.

Amer. Asphalt Paving Co., 133 West Washington St., (7) $53,845, (8) $113,395, (9) $182,458, (10) $100,677, (11) $136,613, (12) $102,138, (13) $129,506, (14) $92,821.

★**Ill., Springfield**—City let contract paving Passfield St., vitr. brick on concrete base, to J. E. Bretz, 24 East Union St. About $25,000. Noted Aug. 18.

★**Ill., Quincy**—City let contract paving various streets, vitr. brick on concrete base, to Roeder & Greeman, Front and Jefferson Sts., $26,286. Noted July 21.

★**Ill., Warren**—City let contract paving various streets, brick on concrete base, to A. E. Rutledge, 502 Mead Bldg., Rockford, $25,673.

★**Ill., West Frankfort**—Denning Twp. let contract grading and paving 3 mi. Pershing-Zeigler and Orient Rds., 15 ft. wide, involving 11,842 cu.yd. earth excav., 208 cu.yd. concrete, 25,269 sq.yd. novaculite pavement, to C. H. Cromwell, Georgetown, $44,735. Noted July 7.

★**Wis., Beaver Dam**—City let contract paving various streets with Trinidad asphalt, to J. Rasmussen & Sons, foot 7th St., Oshkosh, $67,499. Noted Aug. 11.

★**Wis., Darlington**—City let contract paving 10,689 sq.yd. Harriett and Ohio Sts., to J. Rasmussen & Sons, foot of 7th St., Oshkosh, at $2.99 per sq.yd.

★**Wis., Shawano**—City let contract paving 1.8 mi. Main St., concrete, sidewalks with combined curb and gutter and installing catch basins, to J. McCarthy Constr. Co., Main St., Kaukauna, at $53,272

★**Wis., Shorewood** (Milwaukee P. O.)—Village let contract paving Jarvis and Shorewood Aves., grading Frederick Ave., involving 10,000 sq.yd. concrete and 3,200 cu.yd. earth excav., to Dean Constr. Co., 382 East North Ave., Milwaukee, paving at $2.58 per sq.yd., grading at $0.68. Noted July 14.

★**Ia., Burlington**—City let contract paving various streets, brick and concrete, to M. W. Daly, 1017 North Central Ave. About $25,000.

★**Ia., Des Moines**—Polk Co. let contract grading, draining and paving 1.5 mi. South-West 9th St., from city limits to Fort Des Moines, 20 ft. wide, involving 7,522 cu.yd earth excav., 17 522 sq.yd. concrete paving, 3,200 lin. ft. combination curb and gutter, etc., to Wright Constr. Co., 211 Flynn Bldg., $2.88 per sq.yd. for paving, $0.79 per cu.yd. excav., $1.49 for curb and gutter.

★**Ia., Des Moines**—City let contract paving West 16th St., brick on concrete base, to Des Moines Asphalt Paving Co., 7th St. and New York Ave. About $25,000. Noted July 21.

★**Ia., Waverly**—Bremer Co., let contract grading 10.7 mi. Federal Aid Project 88, east and west of here, involving 86,955 cu.yd. earth and 1,007 yd. rock excav., to Peterson, Shirley & Gunther, 1102 Woodmen of the World Bldg., Omaha, Neb., $0.42 per cu.yd. for earth and $3 for rock excav. Noted July 21.

Minn., Brainerd—City received bids grading 1,800 cu.yd. and paving 9,000 sq.yd. Front St. from 4th St. S., to 8th St. S., from S. A. Richies & Son 6226 Tower Ave., Superior, Wis., at $1.30 per cu.yd. for grading and $2.70 per sq.yd. for paving; Ostrand & Hollett, Crosby, $1.10, grading, $2.85 paving. Noted Aug. 4.

★**Minn., Grand Rapids**—Itasca Co. let contract paving 13½ mi. Job 2101, State Rd. 6, from here to St. Louis Co. line, east of Keewatin, Federal Aid Project 157, Grand Rapids Marble Sect., to Johnson, Drake & Piper Inc., 912 Plymouth Bldg., Minneapolis, $417,957; 13½ mi. Marble-Keewatin Sect., to Winston Bros. Co., 801 Globe Bldg., Minneapolis and E. W. Coons Co., 230 Center St., Hibbing, at $411,929. Work involves 288,000 sq.yd. paving 12,000 lin.ft. integral curb and 23,000 lin.ft. wood guard rail. Incorrectly noted Aug. 18.

★**Kan., Hiawatha**—Brown Co. let contract excavating and draining 6.896 mi. Federal Aid Project 84, Capitol Highway, 26 ft. wide, to Cook O'Brien Co., Ry. Exch. Bldg., Kansas City, Mo., $35,780.

★**Kan., Iola**—Allen Co. let contract grading and draining 4.018 mi. Ft. Scott-Wichita Highway, Federal Aid Project 81, involving 42,440 cu.yd. concrete, 775.4 cu.yd. Class A and 20 cu.yd. Class E concrete, 30 ton reinforcing steel, etc., to L. L. Beye, Eldorado, $153,384. Noted July 21.

★**Kan., Kansas City**—Wyandotte Co. let contract building 2.05 mi. Federal Aid Project 85, 36 ft. wide, to Rand Constr. Co., Concordia. About $30,000. Noted July 21.

★**Montana**—State Highway Dept., Helena, let contract grading 18 mi. Pipestone Pass Rd., south of Butte, Silver Bow Co., involving 62,000 cu.yd. excav., 122,300 sta.yd overhaul, 2,600 lb. reinforcing steel, etc., to Heislet Constr. Co., Newhouse Bldg., Salt Lake City, Utah. About $73,000.

Streets and Roads (Continued)

★**Mo., Excelsior Springs**—Ctiy let contract paving various streets, vitr. brick on concrete base, to H. Tidd, Brookfield. About $25,000. Noted Aug. 4.

★**Mo., Kirksville**—Adair Co. let contract grading and draining various roads, to Cooper Constr. Co., Federal Reserve Bank Bldg., St. Louis, $28,829. Noted July 7.

★**S. D., Deadwood**—Lawrence Co. let contract grading and draining 7 mi. Black and Yellow Trail, to Shirley, Peterson & Gunther, 1217 Woodmen of World Bldg., Omaha, Neb., $48,726.

★**S. D., Winner**—Tripp Co. let contract grading 18 mi. Winner-Martin Rd., Federal Aid Project 78, 36 ft. wide, involving 100,000 cu.yd. excav., to Shirley, Peterson & Gunther, 1217 Woodmen of World Bldg., Omaha, Neb., $40,924. Noted June 16 under "South Dakota."

★**Tex., Austin**—G. S. Mathews, judge Travis Co., let contract grading, draining, bridging and surfacing with crushed rock, 9.15 mi. Highway 20, Kimbro Dist., to L. F. McMillan & Williamson Bros., Box 379, Austin, $131,558. Noted July 7.

★**Tex., McKinney**—Collin Co. let contract clearing, grubbing, grading and draining 8 mi. various roads in Pike Dist. 18, involving 14,775 cu.yd. roadway excav., 1,098 ft. 24-48 in. pipe, etc., to O'Neil Eng. Co., McKinney, $25,903.

★**Wash., Walla Walla**—Walla Walla Co. let contract building 8 mi. macadam road on Prescott-Upper Eureka Highway, to Clifton, Applegate & Toole, Hutton Bldg., Spokane, $76,151.

★**Cal., Los Angeles**—City let contract grading and paving Seward St. between Melrose St. and Santa Monica Blvd., involving 79,299 sq.ft. concrete, etc., to W. Liddington, 420 East 60th St., $25,489.

★**Ont., Oshawa**—Town let contract 6,000 sq.yd. asphalt paving on concrete base, 3,500 ft. concrete curbs and gutter, to Standard Paving Co., Central Chambers, Ottawa. About $35,000.

★**Ont., Paris**—Town let contract building 10,000 sq.yd. pavement to Grant Contg. Co., 50 Front St. E., Toronto. About $39,000.

★**Ont., Wingham**—City let contract paving Main St., to Brennan Contg. Co., Wingham. About $35,400.

Industrial Works

PROPOSED WORK

Conn., Wallingford—H. L. Judd Co., 42 South Cherry St., having plans prepared by Lockwood, Greene & Co., archts. and engrs., 101 Park Ave., New York City, for brick and concrete addition to factory, here. About $100,000.

N. Y., Buffalo—Iroquois Natural Gas Co., Iroquois Bldg., plans to build plant. About $4,000,000. L. Brown, Iroquois Bldg., engr.

N. Y., Eastwood—Lamson Co., 196 Walker St., Lowell, Mass., having plans prepared by J. T. Cowley, archt. and engr., Lowell, Mass., for factory, here. About $500,000.

N. Y., New York—Fordham Plaza Auto Co., Inc., 1856 Bath Ave., Brooklyn, having plans prepared by C. Clark, archt. and engr., 441 Tremont Ave., for 3 story, 100 x 160 ft., brick, steel and concrete garage, concrete foundation, on Webster Ave. near 189th St., Bronx. About $150,000.

N. J., Camden—L. Sharp, 22nd and Federal Sts., receives bids about Sept. 1, building 1 story, 50 x 100 ft., concrete, brick and steel garage, concrete foundation, on 43rd and Federal Sts. About $40,000. B. H. Lackey, 507 Federal St., archt.

Pa., Phila.—M. A. Bernhardt, archt., 721 Walnut St., preparing plans for 1 story, 70 x 150 ft., rein.-con., steel and brick garage, rein.-con. flooring, concrete foundation, on Broad and Moyamensing Aves. About $75,000. Owner's name withheld.

Pa., Phila.—N. E. Supowitz, archt., 929 Chestnut St., soon receives bids building 2 story, 46 x 110 ft., rein.-con., steel and brick garage, rein.-con. flooring, concrete foundation, at 715-19 South 6th St. About $60,000. Owner's name withheld.

Md., Baltimore—Franklin Motor Car Co., 1017 North Eutaw St., having plans prepared by O. G. Simonson, archt., Maryland Casualty Bldg., constructing 3 story, 40 x 75 ft., brick and steel sales and service building, on Biddle and Charles Sts.

Md., Baltimore—Western Maryland Dairy Co. having plans prepared by J. E. Sperry, archt., Calvert Bldg., constructing dairy on Linden and Dolphin Sts. About $260,000. A. B. Gardner, pres. K. W. Schantz, 768 Potomac Ave., Buffalo, N. Y., engr.

D. C., Wash.—Weller Constr. Co., 816-14th St., N. W., preparing plans building brick and concrete storage building at 4½ and D Sts. About $500,000. Owner's name withheld.

W. Va., Altavista—Altavista Photo Play Co., c/o Meanor & Handloser, archts., Robson-Pritchard Bldg., Huntington, having plans prepared for 1 and 2 story, 75 x 125 ft. and 80 x 90 ft. moving picture plant, brick and steel. About $75,000.

O., Cleveland—Carris-Franklin Sales Co., 3622 Prospect Ave., plans to build 2 story, brick and steel garage, brick foundation. About $100,000. C. L. Carris, mgr. Private plans.

O., Cleveland — International Steel Tie Co., 16702 Waterloo Rd., plans to build 1 story, 40 x 120 ft., brick and steel factory, brick foundation. About $40,000. W. C. Mahon, secy. Private plans.

O., Cleveland—S. Glazer, 603 Republic Bldg., having plans prepared by E. A. Curtis, archt., for 1 story, 65 x 140 ft., brick and steel garage, brick foundation, on Euclid Ave. near 105th St. About $60,000.

O., Cleveland—M. L. and I. G. Kohn, 722 Natl. City Bldg., plans to build 3 story, brick and steel garage, brick foundation, on Carnegie Ave. and East 36th St. About $100,000. Private plans.

O., Shaker Heights—See "Buildings."

Ill., Carrollton—City plans to build electric light plant. About $90,000. I. Lender, clk. Engineer not selected.

Ill., Chicago—Hadomac Constr. Co., 111 Washington St., having revised plans prepared for 5 story, 64 x 171 ft. rein.-con. and brick factory and office on 36th Pl. and State St. About $450,000. Private plans.

Ill., Chicago—Niagara Radiator & Boiler Co., North Tonowanda, N. Y., having plans prepared and soon receives bids, building 1 story, 140 x 175 ft., brick and steel foundry, 63d St. and Woodlawn Ave. About $100,000. E. C. Andrews, pres. Private plans.

Ill., Chicago—W. G. Uffendell, archt., 39 South State St., receives bids about Sept. 15, building 3 story, 75 x 200 ft., rein.-con. and steel garage at 4616 Winthrop Ave., for Sheridan-Wilson Garage Co., 64 West Randolph St. About $150,000.

Wis., Appleton Junction—Traas Candy Co., Appleton, having preliminary plans prepared building 3 story, 40 x 90 ft., rein.-con., brick and tile candy factory, brick foundation, on Main St., here. About $50,000. Private plans.

Wis., Edgerton—Highway Trailer Co., c/o J. W. Menhall, pres., having plans prepared for 2 story, 60 x 180 ft., rein.-con. and steel factory and office building, brick foundation. About $55,000. Private plans.

Wis., Elkhart Lake—Public Service Co., c/o W. A. Burke, secy., had plans prepared and will reecive bids about Sept. 1 for 1 story, 60 x 110 ft., brick and rein.-con. power and machine shop. About $100,000. Private plans.

Wis., Kenosha—C. O. Augustine, archt., Kenosha, receives bids about Sept. 1, building 1 story, 100 x 100 ft., rein.-con. factory addition, rein.-con flooring, plain foundation, for P. Pirsch & Co., Fairfield Ave. About $50,000.

Wis., Menasha—United Paper Corp., c/o J. S. Frankland, pres., having preliminary plans prepared for 4 story, 60 x 110 ft., rein.-con. and steel paper factory (2nd unit), rein.-con. flooring, on Main St. About $100,000. Private plans.

Wis., Neenah—E. A. Wettengel, 578 Pierce Ave., Appleton, having plans prepared building 1 and 2 story, 80 x 555 ft., brick, rein.-con. and steel paper mill, rein.-con. flooring, brick foundation, on Blair Spring site. About $800,000. Private plans.

Wis., North Milwaukee—J. Greenebaum Tanning Co. receiving bids constructing 2 story, 50 x 70 ft. brick tannery building, plain foundation. About $40,000. Private plans.

Wis., Rice Lake—Brunett Heating Co., c/o S. A. Brunett, pres., Minneapolis, Minn., having plans prepared for 5 story, 60 x 150 ft., rein.-con., steel and brick furnace factory, rein.-con. flooring, brick foundation here. About $500,000. Private plans.

Wis., Sheboygan—Trilling—Kill Oil Co., Sheboygan, plans to build 2 story, 60 x 200 ft., rein.-con. warehouse, rein.-con. flooring, brick foundation. About $75,000. Architect not selected.

Minn., Minneapolis—Bd. Park Comrs., City Hall, plans to build 2 story, rein.-con., brick and tile storage plant and laundry, on Lyndale and Farmstead Sts. About $175,000. J. A. Ridgway, secy. Architect not announced.

Okla., Pawhuska—City election Sept. 6, to vote on $113,000 bonds to build electric light plant. H. G. Olmsted & Co., Tradesman's Bank Bldg., Oklahoma City, engrs.

Cal., Coyote Wells—California Gypsum Corp., 731 Pacific Finance Bldg., having plans prepared for gypsum plant. About $350,000. R. W. Waterman, Hotel Clark, Los Angeles, engr.

Cal., Los Angeles — C. C. Brown Candy Co., 621 South Olive St., having plans prepared by T. B. Kein, Jr., archt., 719 Haas Bldg., for 3 story, 60 x 165 ft., brick factory, concrete foundation, on Flower St. near 8th St.

Cal., Los Angeles—Swift & Co., 922 East 1st St., having plans prepared for 1 story, brick and concrete addition to packing plant, at 922 East 1st St. About $60,000. J. E. Chatem, supt. Private plans.

Ont., Clifford—Town plans to rebuild lighting plant. Prices wanted on all materials. Address J. R. Aitchison, Clifford.

Ont., Simcoe—Comet Automobile Co., 156-160 South Water St., Decatur, Ill., plans to build factory here. About $50,000.

Ont., Windsor—Canadian Planet Eng. Co. plans to build factory here. About $75,000. H. Johnstone, mgr.

BIDS DESIRED

R. I., Providence—Monks & Johnson, archts. and engrs, 99 Chauncy St., Boston, receiving bids building 1 story, brick, steel and concrete factory, rein.-con. flooring, on North Main St., here, for Williams & Anderson Co., 33 Broad St. About $60,000. Noted Aug. 18.

Conn., New Haven—Westcott & Mapes, Inc., archts and engrs., 207 Orange St., receiving bids building 1 story, 80 x 80 ft., rein.-con., brick and steel power house, rein.-con. flooring, concrete foundation, on Temple St., for Estate of E. Malley, 902 Chapel St. About $150,000. Noted Aug. 18.

Pa., Pittsburgh—J. Kossler, 148 Wabash St., receiving bids building 2 story, 63 x 80 ft., concrete, brick and steel garage, rein.-con. flooring, on Main St., West End. About $40,000. C. H. Geisler, Appollo Bldg. archt.

Pa., Pittsburgh—Point Motor Co., 36 Penn Ave., receiving bids altering and building 3 story, 75 x 110 ft., concrete, brick and steel addition to garage, rein.-con. flooring, on Penn Ave. and Bell Alley. Cost between $40,000 and $50,000. J. P. Piper, Pittsburgh, archt.

O., Cleveland—Koller Bros., 724 Prospect Ave., receiving bids building 1 story, 50 x 106 ft., brick and steel garage, brick foundation, at 703 Huron Rd. About $50,000. J. L. Cameron, 10406 Euclid Ave., archt.

Ill., Chicago—P. Gerhardt, archt., 64 West Randolph St., receiving bids building 7 story, 61 x 100 ft., brick, concrete and stone factory at 359 Ontario St. About $300,000. Owner's name withheld.

Ill., Chicago — Hinckley & Schmitt, 418 West Ontario St., receiving bids building 2 story, 100 x 200 ft., mill construction addition to factory, concrete foundation. About $100,000. H. C. Hengels, 425 East Water St., Milwaukee, Wis., archt. and engr.

Wis., Green Bay—Americ Lumber & Mfg. Co., South Pearl St., receiving bids building 2 story, 150 x 160 ft., rein.-con., brick and tile warehouse and factory, rein.-con. flooring, brick foundation, on Pearl St. About $50,000. Private plans.

Wis., Milwaukee—Until Aug. 29, by M. Tullgren & Sons, archts., 425 East Water St., building 1 and 2 story, 120 x 220 ft., brick factory, concrete flooring, plain foundation, on Franklin St., for Rosenberg Elevator Co., 174 Reed St.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★**Mass., Springfield**—G. Chaplin, 374 Main St., will build 1 story, brick, steel and concrete garage, rein.-con. flooring, Ft. Pleasant Ave. About $40,000. Work will be done by day labor.

★**Mass., Springfield** — Noyes Buick Co., 758 Main St., will build 1 story, 100 x 185 ft., rein.-con., brick and steel garage, sales and service station on Main St. About $125,000. Work will be done by day labor.

★**Conn., Hartford**—New England Brewing Co., 513 Windsor Ave., let contract building 3 story, 85 x 200 ft., rein.-con. and brick factory, rein.-con. flooring, on Windsor St., to Ahern & Welch Co., 721 Main St. About $75,000.

★**Conn., Hartford**—United States Envelope Co., Cypress St., Springfield, Mass.,

Industrial Works (Continued)

let contract for alterations to factory on Pearl St., here, to Casper Ranger Constr. Co., 20 Bond St., Holyoke, Mass. Cost between $50,000 and $60,000.

★**Conn., Norwich**—Yantic Grain & Products Co., Yantic, will build 1 story, 110 x 170 ft. warehouse, with 84 x 170 ft. ell, along Central Vermont R.R. Work will be done by day labor.

★**N. Y., Albany**—Gibson-Snow Drug Co., Bway. and Orange St., let contract building 4 story, 38 x 106 ft., brick and timber factory, brick foundation, to H. K. Ferguson Co., 6523 Euclid Ave., Cleveland. About $160,000.

N. Y., Ithaca—C. D. Bostwick, comptroller, at his office Cornell University, opened bids Aug. 18, constructing dairy industry building, at Cornell University, (a) construction, including heating, sanitary and electric work, (b) construction, (c) heating, (d) sanitary work, (e) electric work, from M. Kantrowitz, 20½ Market St., Albany, (a) $499,700; (b) $392,600; J. D. Taylor Constr. Corp., 115 South Salina St., Syracuse, (b) $347,174; Drummond-Miller Co., 4500 Euclid Ave., Cleveland, (b) 349,800; W. H. Taylor & Co., 256 Hamilton St., Allentown, Pa., (c) $19,140, (e) $10,690; G. H. Drake, Inc., 218 Lexington Ave., Buffalo, (c) $21,530, (d) $20,130; G. Woodward, Jr. & Co., Ithaca (c) $22,531, (e) $10,957; Power Efficiency Corp., White Bldg., Buffalo, (c) $23,486, (d) $23,468; E. W. Tompkins & Co., Albany, (d) $23,273; F. T. Ley & Co., Inc., 495 Main St., Springfield, Mass., (e) $10,577. Noted July 28.

★**N. Y., Syracuse** — Meldrum-Gabrielson Corp., Industrial Bldg., let contract building 1 and 2 story, 60 x 160 ft., concrete, brick and steel machine shop, on West Faette St., to Dawson Bros., Union Bldg. About $75,000. Noted June 2.

★**N. Y., Syracuse**—Onondaga Pottery Co., 1858 West Fayette St., let contract building 1 story, 140 x 700 ft., concrete, brick and steel plant, on Court St. Rd., to Dawson Bros., Union Bldg. About $200,000.

★**Pa., Carbondale**—Hendrick Mfg. Co. let contract building 1 story, 100 x 220 ft., brick and steel, boiler shop, concrete foundation, to Austin Co., Bulletin Bldg., Phila. About $100,000.

★**Pa., Phila.**—Tazewell Mfg. Co., Tazewell, Va., let contract building 3 story, 60 x 200 ft., rein.-con., brick and steel bottling plant, rein.-con. flooring, concrete foundation, to Austin Co., Bulletin Bldg. About $70,000.

★**Pa., Pittsburgh**—Natl. Biscuit Co., 201 10th St., let contract building, altering and building addition to 6 story, brick and steel factory at 409 Liberty Ave., to Turner Constr. Co., 242 Madison Ave., New York City. About $75,000.

★**Pa., Punxsutawney** — Punxsutawney Beef & Provision Co. let contract building 2 story, 80 x 100 ft. concrete and steel storage plant, rein.-con. flooring, to Walker & Curley, Arrott Bldg., Pittsburgh. Cost between $40,000 and $50,000.

★**Md., Baltimore**—Adamantex Brick Co., Arbutus, let contract building 2 story, 162 x 268 ft., brick and steel brick making plant, to L. V. Thayer Constr. Co., 25 West 43rd St., New York City. About $150,000.

★**O., Cleveland**—J. Kirby, Kirby Bldg., let contract building 5 story, 62 x 130 ft., brick, steel and concrete garage, rein.-con. flooring, brick and concrete foundation, on West 6th St., and Frankfort Ave., to H. K. Ferguson Co., 6523 Euclid Ave. About $200,000. Noted July 21.

★**Ill., Chicago** — Illinois Steel Co., 3426 East 89th St., having plans prepared by L. C. Holmbee, archt., 3426 East 89th St., for 3 story, 92 x 375 ft., brick and steel power plant, at 3400 East 87th St. About $350,000. Work will be done by day labor.

★**Wis., Hartford**—Portz Bros. Malt Co. let contract building 4 story, 64 x 120 ft., rein.-con., steel and brick condensory and pasteurizing plant, rein.-con. flooring, brick foundation, to J. Thorn, East Main St., about $150,000.

★**Wis., Manitowoc**—Manitowoc Co. let contract building 1 story, 40 x 92 ft., rein.-con., steel and brick machine shop, rein.-con. flooring, brick foundation, to H. V. Hertting, Inc., Dempsey Bldg. About $40,000.

★**Wis., Milwaukee**—Best Block Co., 1228 Humboldt Ave., let contract building 1 story, 50 x 60 ft., concrete and brick factory (1st unit), rein.-con. flooring, plain foundation, on Keefe Ave., to O. Oestreich, 1619 4th St. About $40,000. Noted Aug. 18.

Wis., Milwaukee — Sixteenth St. Garage 191 16th St., let contract building 1 story, 50 x 82 ft., brick and concrete garage addition, rein.-con. flooring, plain foundation, to R. Reisinger & Co., 464 Oakland Ave., about $40,000.

★**Wis., Stevens Point**—G. A. Sutherland, 1210 Swisior St., let general contract building 1 story, 55 x 100 ft., rein.-con. and steel garage, etc., rein.-con. flooring, brick foundation on Main St., to Otrich & Shropshire, Stevens Point, about $40,000.

★**Wis., Wauwatosa**—Sanitarium—Milwaukee Sanitarium, West Main St., let contract building 3 story, 92 x 200 ft., tile and concrete, rein.-con. flooring, concrete foundation, to C. R. Meyer & Sons, 50 State St., Oshkosh. About $150,000. Noted July 28.

★**Minn., Minneapolis**—Pence Auto Co., 8th St. and Hennepin Ave., let contract building 1 story, 100 x 220 ft., concrete and brick factory at 2401 Bway., N. E., to Spaldy & Haagenson, 1022 Plymouth Bldg. About $45,000.

★**Mo., Kansas City**—Church—Country Club Christian Church, c/o L. Bacon, chn., New England Bldg., let contract building 2 story, irregular shaped, brick and stone, on 61st St. and Ward Parkway, to J. C. Hendrickson, 2452 Norton Ave. About $150,000.

★**Mo., Springfield**—Church—Campbell St. Methodist Episcopal Church, c/o W. F. McMurray, pastor, let contract building 2 story, brick, stone and steel, to A. Maggl, Springfield. About $150,000. Noted Dec. 30.

★**Mo., St. Louis**—Eagle Motor Truck Co., c/o J. P. Reis, 6154 Bartmer Ave., let contract building 1 story, 50 x 50 ft., brick factory, at 6154 Bartmer Ave., to Robinan & Sons, 6063 Clemons Ave. About $50,000. Noted May 12.

★**Tex., Dallas**—Peaslee Gaulbert Co., 413 West Main St., Louisville, Ky., let contract building 1 story 100 x 330 ft., brick and concrete factory and warehouse, here, to Mahaffey & Howard, Gaston Bldg. About $50,000.

Buildings

PROPOSED WORK

Mass., Longmeadow (Springfield P. O.)—Church—St. Mary's Parish plans to build 1 story, stone, R. Murphy, pastor. About $150,000. Architect not selected.

Mass., Palmer—High School—Town plans to build 2 story, brick and concrete, on Converse St. About $150,000. H. M. Parsons, chn. com. M. W. Maloney, 145 Chestnut St., Springfield, archt.

Conn., Bridgeport — Bank — Commercial Bank & Trust Co., 1334 Main St., having plans prepared by A. Hopkins, archt., 101 Park Ave., New York Ciy, for 1 story, brick, stone and marble, on Main St. About $150,000.

Conn., Bristol — Church — St. Stanislaus Polish Church had plans prepared by J. A. Jackson, archt., 660 George St., New Haven, for 1 story, 72 x 131 ft., brick, steel and limestone, on West St. About $150,000. G. Bartlawski, pastor.

Conn., New Britain—Convent, etc.—Society of Children of Mary, c/o H. F. Ludorf, archt., Mutual Bldg., having plans prepared for 3 story, brick and concrete, on Orange St. About $200,000.

Conn., New Britain—Theatre, etc.—S. Shurburg, 55 Franklin St., having plans prepared by F. C. Waltz, archt., 407 Trumbull St., Hartford, for 2 story, brick and steel addition to business building on Main St., also theatre in rear of property to seat 3,900. About $150,000.

Conn., New Haven — Club and Gymnasium—St. Michaels Young Mens Club, Greene St., having plans prepared by Della Valle & Vece, archts., Exchange Bldg., for 3 story, 50 x 150 ft., brick, concrete and steel, on Green St. About $150,000.

N. Y., New York — Apartment — M. Deutsch, archt. and engr., 50 Church St., prepared plans for 5 story, brick, steel and stone, concrete foundation, on 140th St. and Brook Ave. About $150,000. Owner's name withheld.

N. Y., New York—Church—Third Church of Christ Scientist, Park Ave. and 63d St., having plans prepared by Delano & Aldrich, archts., 126 East 38th St., for 2 story, 100 x 100 ft., brick, steel and stone, concrete foundation. About $200,000.

N. Y., Syracuse—Physicians—P. S. Andrews, atty., 1st Trust Company Bldg., had plans prepared by D. R. Collins, archt. and engr., Union Bldg., for 8 story, 71 x 104 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on East Genesee St. About $400,000.

N. J., North Bergen (Weehawken P. O.)—Schools—Bd. Educ. plans to build addition to School 2 in Woodcliff Sect., cost $175,000; new Junior High School in Woodcliff Sect., $750,000; addition to school in New Durham Sect., $300,000. T. Harmon, North Bergen, engr.

N. J., Trenton—Temple—Mercer Co. Central Labor Union, 47 North Clinton Ave., having plans prepared by W. Hankin, archt., 241 South Warrent St., for 72 x 139 ft. temple. About $400,000. Noted June 30.

Pa., Pittsburgh—Theatre—and Office—Steel City Amusement Co., 801 Wylie Ave., having plans prepared by Simms, Britain & English, archts., Magee Bldg., for 4 story, 60 x 210 ft., concrete, steel and brick, rein.-con. flooring, on Centre and Montrose Aves. About $250,000.

D. C., Wash.—Club—Woman's Natl. Foundation Club plans to build club, 250 rooms, at 20th St. and Florida Ave. B. Hoffman, 120 West 32nd St., New York City, archt.

D. C., Wash.—Theatre—H. M. Crandall, 3321 16th St., N. W., plans to build motion picture theatre, at 14th St. and Park Rd., N. W. About $500,000. R. Greare, Woodward Bldg., archt.

W. Va., Huntington—Theatre, Store and Office—Equitable Amusement Co., c/o Meanor & Handloser, archts., Robson-Prichard Bldg., having plans prepared for 3 or 6 story, 90 x 160 ft., concrete, steel and brick, rein.-con. flooring. Cost between $300,000 and $400,000.

W. Va., Terra Alta—Hospital—State Bd. Control, Charleston, having plans prepared by H. R. Warne, archt., Masonic Temple, Charleston, for hospital. About $150,000.

N. C., Charlotte—Temple—Oasis Temple of Mystic Shrine having plans prepared by L. D. Sutherland, archt., 509 Kingston Ave., for temple. About $350,000.

N. C., Fremont — School — Bd. School Trustees plans to build school. Bonds for $150,000 voted for project.

Tenn., Nashville—School—State Bd. Administration having preliminary plans prepared by Marr & Holman, archts., 701 Stahlman Bldg., for school for feebleminded, near here. About $300,000. L. T. Pope, secy.

O., Amherst—School—Bd. Educ. having plans prepared by R. S. Silsby, archt. 901 Lorain Co. Bank Bldg., Elyria, for 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $200,000.

O., Cleveland—Commercial—W. B. Cohen and D. Koblitz, Prospect Bldg., having plans prepared by J. L. Weinberg, archt., Fidelity Mortgage Bldg., for 4 story, 62 x 100 ft., brick and steel, brick foundation, on Central Ave. and East 14th St. About $150,000.

O., Cleveland—Community Center—Cuyahoga Center—Cuyahoga Garage Co., c/o G. Deisman, vice-pres., 8810 Harvard Ave., plans to build 2 story, 196 x 350 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Bway. and Harvard Ave. About $300,000. Architect's name withheld.

O., Cleveland — Hotel — Cutler Turkish Bath Co., Public Sq., having plans prepared by P. Matzinger, archt., Caxton Bldg., for 6 story, 40 x 170 ft., brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, at 1122 Prospect Ave. About $300,000.

O., Columbus—High Schools—Bd. Educ., Town and High Sts., sold $3,000,000 bonds to build 3 large high schools. Howell & Thomas, archts., 4500 Euclid Ave., Cleveland, prepared preliminary plans for East High School, 3 story, 200 x 375 ft., brick, stone and concrete, containing auditorium, chemical and physical laboratories, gymnasiums and score of class rooms, on East Broad St. Noted July 14.

O., Hiram — Dormitory — Bd. Trustees Hiram College having plans prepared by A. Garfield, archt., Natl. City Bldg., Cleveland, for 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $200,000.

O., Shaker Heights—Commercial, etc.—Moreland Development Co., Marshall Bldg., Cleveland, having plans prepared by A. W. Harris, archt., Schofield Bldg., Cleveland, for 4 story, brick, steel and concrete commercial and garage, rein.-con. flooring, brick and concrete foundation, on Shaker Blvd. and Market St., here. About $250,000.

Buildings (Continued)

O., Sheffield (Lorain P. O.)—School—Bd. Educ., Elyria, having plans prepared by R. S. Silsby, archt., 901 Lorain Co. Bank Bldg., Elyria, for 2 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, here. About $180,000.

O., Springfield—Dormitory—Bd. Trustees Wittenberg College having plans prepared by H. D. Smith, archt., Town and High Sts., Columbus, for 3 story, 15 x 40 ft., brick and concrete, on campus. About $100,000.

Ind., Richmond—Hospital—Read Hospital having preliminary plans prepared by E. F. Stevens, archt., 9 Park St., Boston, Mass., for 3 story, brick and concrete addition on 10th St. About $150,000.

Ind., South Bend—Hotel—J. Handelman, Kimball Bldg., Chicago, Ill., having plans prepared by J. S. Aroner & Co., 304 South Wabash Ave., Chicago, for 8 story, 150 x 175 ft., concrete and brick, on Main St. and City Hall, here. About $600,000.

Mich., Detroit—Church—North Woodward Methodist Episcopal Church having revised plans prepared by W. E. N. Hunter, archts., 1436 Washington Blvd., for 2 story, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Woodward and Marston Aves. About $500,000. P. Voorhies, 1180 Longfellow Ave., chn. bldg. comn.

Mich., Detroit — Museum — Fine Arts Comn., 2900 East Jefferson Ave., having revised plans prepared by P. Gret, Zantzinger, Borie & Medary, archts., 112 South 16th St., Phila., for 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Woodward Ave. About $3,000,000. W. J. Gray, 2900 East Jefferson Ave., pres. Noted Feb. 10.

Mich., Grand Rapids—School. Bd. Educ., City Hall, having plans prepared by H. H. Turner, archt., Michigan Trust Bldg., for 2 story, rein.-con., brick, stone and steel, concrete foundation. About $200,000.

Mich., Kalamazoo — Library — Michigan State Normal School having plans prepared by H. H. Turner, archt., Michigan Trust Bldg., Grand Rapids, for 2 story, rein.-con. and steel, rein.-con. flooring, concrete foundation, on Normal Grounds. About $300,000.

Ill., Bradford—Church—St. John's Catholic, c/o A. A. Stapleton, pastor, plans to build 2 story, rein.-con., brick and stone. About $150,000. Architect not selected.

Ill., Champaign—Apartment—Howard & Nash Real Estate Co. having plans prepared by G. Ramey, archt., Roberson Bldg., for 3 story, 40 x 140 ft., rein.-con., brick and stone. About $150,000.

Ill., Champaign — Dormitory — Rotary Club, c/o H. K. Millard, plans to build 3 story, rein.-con., brick, stone and steel. About $150,000. Architect not selected.

Ill., Charleston—High School—Bd. Educ., c/o C. B. Nuchmore, secy., plans to build 2 story, rein.-con., brick and stone. About $150,000. Architect not selected.

Ill., Chicago—Apartment—H. Apfelbach, archt., 111 West Monroe St., preparing plans and soon receives bids building 2 story 60 x 105 ft., brick and stone, at Arthur and Glenwood Sts., for J. N. Navin, c/o archt. About $200,000.

Ill., Chicago—Apartment—S. A. Danielson, 5349 North Paulina St., having plans prepared by A. Sandsgren, archt., 116 East Oak St., and soon receives bids building 3 story, 160 x 175 ft., brick and stone, on Sheridan Rd. and Lunt Ave. About $500,000.

Ill., Chicago — Apartment — A. Tiesen, archt., 4804 North Kedzie Ave., preparing plans and soon receives bids building 3 story, 100 x 175 ft., brick and stone, at 6110-18 Winthrop St., for Plotke & Grosby, 2532 North Clark St. About $175,000.

Ill., Chicago—Ballroom—Fantasia Corp., c/o J. S. Aroner, archt., 25 East Jackson Blvd., having plans prepared for 1 story, rein.-con., brick and steel, on 64th St. and Cottage Grove Ave. About $750,000. M. W. Allen, pres.

Ill., Chicago—Hotel — Churchill Hotel Corp., c/o W. L. Ross, 80 East Jackson Blvd., having plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., for 9 story, 113 x 116 ft., rein.-con., brick and stone, on State and Goethe Sts. About $1,000,000.

Ill., Chicago — Store and Theatre — E. Stern, 922 Gault Ave., having plans prepared by W. Ahlschlager, archt., 65 East Huron St., for 2 story, 260 x 300 ft., brick, stone and terra cotta, at 1617-37 Belmont Ave. About $2,000,000.

Ill., Chicago—Temple—Memorial Masonic Temple Assn., c/o G. E. Dewy, pres., 740 East 41st St., had plans prepared by S. C. Dyer, archt., 38 South Dearborn St., for 3 story, 150 x 150 ft., rein.-con. and brick, on 49th St. and Drexel Blvd. About $550,000.

Ill., Chicago—Temple—Prince Hall Masonic Temple Assn., c/o T. N. Sellers, 5756 South State St., having plans prepared by F. L. Fry, archt. and engr., 140 South Dearborn St., for 5 story, 100 x 161 ft., rein.-con. and brick, on 56th and State Sts. About $800,000.

Ill., Cicero—Theatre—P. Gerhardt, archt., 64 West Randolph St., preparing plans for 2 story, 125 x 185 ft., rein.-con., brick and terra cotta. About $500,000. Owner's name withheld.

Ill., Jacksonville—Library and Administration—Illinois College, c/o C. A. Rammelkamp, pres., having plans prepared by H. Shaw, archt., 39 South State St., Chicago, for 2 story, brick, stone and rein.-con. About $150,000.

Ill., Rogers Park (Chicago P. O.)—Apartment—J. Jensen, archt., 4815 North Lawndale Ave., Chicago, preparing plans for 3 story, 150 x 200 ft., brick and stone. About $300,000. Owner's name withheld.

Ill., Toulon—High School—Bd. Educ. rejected bids building 2 story, brick, stone, rein.-con. and steel. About $150,000. J. A. Newlan, secy. Hewitt & Emerson, 321 Main St., Peoria, archts. Noted July 14.

Ill., Urbana—Hospital—St. Mary's Mercy Hospital, Urbana, c/o R. Flynn, 612 East Park Ave., Champaign, plans to build 3 story, rein.-con. and brick, here. About $175,000. Architect not selected.

Wis., Madison—Church—W. Jones, archt., 19 LaSalle St., Chicago, preparing plans and soon receives bids building 3 story, 75 x 100 ft., rein.-con., brick and stone, here, for First Methodist Episcopal Church, c/o archt. About $300,000. Noted July 28.

Wis., Milwaukee—Nursery—St. Francis Day Nursery, 668 4th St., having plans prepared by A. Dohmen, archt. and engr., 68 Wisconsin St., for 4 story, 100 x 120 ft., brick and steel, rein.-con. flooring, concrete foundation, on 4th St. About $150,000.

Wis., Milwaukee—Schools—School Bd. having plans prepared by Van Ryn & DeGelleke, archts., 114 Grand Ave., for 1 and 2 story brick and concrete additions, rein.-con. flooring, concrete foundations, on Dover St., cost $38,000; Center St., $87,500; 2nd Ave., $75.000; Detroit St., $41.500; Island Ave., $80,000; Hanover St., $65,000; 5th St., $26.000; Prairie St., $30,000. F. Harback, secy.

Wis., Milwaukee—Theatre and Business —Teutonia Ave., Realty Co., 1110 Teutonia Ave., had plans prepared by Dick & Bauer, archts., 811 State St., for 2 story, 85 x 200 ft., rein.-con. and brick, rein.-con flooring, plain foundation, on Teutonia Ave. About $200,000.

Wis., Wauwatosa—School and Auditorium—Holy Cross Catholic Congregation having plans prepared by Bocks & Pfaller, archts. and engrs., 216 West Water St., for 2 story, 94 x 115 ft. and 1 story, 45 x 80 ft. brick, concrete and steel, rein.-con. flooring, concrete foundation, on Blue Mound Rd. About $150,000. P. Schroeder, pastor.

Ia., Clarinda—High School—Bd. Educ., c/o H. S. Stephens, secy., having plans prepared by Keffer & Jones, archts., Masonic Temple, Des Moines, for 2 story, rein.-con., brick, steel and stone. About $200,000.

Ia., Council Bluffs—Church—First Baptist Congregation having plans prepared by W. C. Jones, archt., 19 South La Salle St., Chicago, for 2 story, 50 x 125 ft., rein.-con., brick and stone. About $150,000.

Ia., De Soto — School — City plans election Aug. 30 to vote on $150,000 bonds to build school. J. Bower, secy. Bd. Educ.

Kan., Leavenworth — Hospital — Natl. Soldiers Home, c/o W. S. Albright, Bway. and Oak Sts., having plans prepared by W. P. Feth, archt., 405 Delaware St., for 4 story, brick and rein.-con. About $1,000,000.

Kan., Topeka—Church—First Methodist Episcopal Church, 6th and Harrison Sts., plans to build 2 story, native stone, brick and steel. About $150,000. E. J. Kulp, pastor. Architect not selected.

Neb., Fremont—High School—Bd. Educ. having plans prepared by A. H. Dyer & Co., archts., Fremont, for 2 story, 102 x 166 ft., rein.-con., brick and stone. About $250,000.

Mo., St. Louis — Temple — Masonic Temple (Blue Lodge), c/o J. Jones, Ry. Exch. Bldg., having plans prepared by Eames, Yoring & A. B. Groves, archts., Arcade Bldg., for 2 story, rein.-con., brick, stone and steel, on Lindell and Spring Aves. About $1,500,000.

Tex., Dallas—Club—Y. W. C. A., c/o W. D. Felder, pres. Y. W. C. A. Bldg. Comn., having plans prepared by C. D. Hill & Co., archts., Sumpter Bldg., for 4 story, rein.-con., brick and steel. About $350,000.

Tex., Dallas—School—City had plans prepared and soon receives bids building 2 story, 160 x 175 ft., brick, on Gaston and Washington Sts. About $175,000. De Witt & Lemmon, 806 Southwest Life Bldg., archts.

Cal., Long Beach—Telephone Exchange—Associated Telephone Co., 225 East 1st St., having plans prepared by W. H. Austin, archt., 1st Natl. Bank Bldg., for 3 story, at 5th and Elm Sts. About $250,000.

Que., Montreal—Courthouse—Provincial Government, Quebec, soon receives bids building annex to courthouse. About $3,000,000. E. Cormier, Drummond Bldg., ch. engr.

Ont., St. Catherines—Institute and School—Bd. Educ., 13 Welland Ave., having plans prepared by S. B. Coon & Sons, archts., 4 St. Thomas St., Toronto, for 3 story (20 room), rein.-con., brick and steel Collegiate institute and technical school on Geneva St. About $600,000.

BIDS DESIRED

Maine, West Pownal—Home—Until Aug. 30, by State, State House, Augusta, building 1 story 50 x 175 ft., dining building, 2 story, 32 x 135 ft. dormitory with 2 wings, 32 x 47 ft. each, brick and cast stone, concrete foundations, here. About $250,000. H. S. Combs, Lewiston, archt.

Mass., Boston—Theatre and Office—Until Aug. 31, by Mowell & Rand, archts., 50 Bromfield St., building 8 story, 100 x 256 ft., concrete, brick and steel, rein.-con. flooring, concrete foundation, on Washington St., for Olympia Theatre, Inc. About $1,000,000.

Conn., New Haven—Hospital—C. S. Palmer, archt., 114 Whitney Ave., receiving bids building 4 story, 50 x 125 ft., brick, concrete and steel, private ward building, rein.-con. flooring, concrete foundation, for New Haven Hospital, 330 Cedar St. About $400,000.

N. Y., Brooklyn—School—Until Sept. 2, by C. B. J. Snyder, supt. School Bldgs., Municipal Bldg., New York City, altering and building additions to P. S. 136, on 4th Ave. between 40th and 41st Sts. Noted Dec. 9.

N. Y., Coney Island—Bath House—Until Aug. 31, by E. Riegelmann, pres. Brooklyn Boro., building addition to municipal bath house on Concourse Dr. and 5th St., here. Noted May 19.

N. Y., Perrysburg—Hospital—Until Sept. 6, by Com. of Parks & Buildings, Municipal Bldg., Buffalo, constructing additions to present buildings, also various new buildings, here. Former bids rejected. Noted July 28.

N. Y., Rochester—School—Until Sept. 6, by Bd. Educ. building P. S. 44, 3 story, 90 x 146 ft., rein.-con., brick and steel, concrete foundation, on Chili Ave. About $205.000. E. S. Gordon, 125 Sibley Blk., archt.

Pa., Phila.—Theatre and Store—Until Sept. 1, by Hoffman-Henon Co., archts., Finance Bldg., building 7 or 9 story, 62 x 180 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on 11th and Market Sts., for Stanley Co. of America, Palace Theatre Bldg. About $1,500,000. Noted April 21.

Pa., Pittsburgh—High School — Until Sept. 8, by Bd. Educ., building Westinghouse High School and annex, 1 4-story, 274 x 337 ft., concrete, brick and steel, rein.-con. flooring, on Murtland Ave. About $1,500,000.

Pa., Pittsburgh—School—Until Sept. 8, by Bd. Educ., building 3 story, 130 x 240 ft., concrete, brick and steel, rein.-con. flooring, on Perrysville Ave. About $400,000. R. M. Trimble, Ferguson Bldg., archt.

Pa., Pittsburgh—School—Until Sept. 8, by Bd. Educ., building 2 story, 77 x 316 ft. and 3 story, 61 x 66 ft., concrete, brick and steel, rein.-con. flooring, on Greenfield Ave. and Alger St. Cost between $300,000 and $400,000. Kiehnel & Elliot, 4th Ave., archts.

Va., Norfolk—Church—Third Christian Church receiving bids building 1 story, 100 x 135 ft., brick and stone. About $150,000. W. H. Nickles, 1900 Euclid Ave., Cleveland, O., archt. Noted July 7.

Miss., McGee—Sanitarium—State of Mississippi, c/o T. C. Link, Jackson, receiving bids building 3 story sanitarium. About $800,000. Link & Trueblood, Chemical Bldg., St. Louis, Mo., archts.

Buildings (Continued)

O., Ravenna—High School—Until Sept. 7, by Bd. Educ., building 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation. About $350,000. Former bids rejected. O. D. Howard, 8 East Broad St., Columbus, archt. Noted July 28.

Mich., Detroit—Club House—Until Sept. 20, by G. D. Mason & Co., archts., 508 Griswold St., building 3 story, 80 x 325 ft., rein.-con., brick and steel, on Belle Isle, for Detroit Yacht Club, Belle Isle. About $500,000. Noted May 5.

Mich., Detroit—Temple—Until Sept. 15, by Masonic Temple Assn., c/o F. E. Fisher, secy., building 4 and 6 story, 190 x 350 ft., rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, on Temple and 2nd Aves. About $4,000,000. G. D. Mason & Co., 508 Griswold St., archts.

Mich., Shelby—High School—Until Sept. 12, by G. L. Runner, secy. Bd. Educ., building 2 story, 90 x 122 ft., rein.-con., brick and steel, concrete foundation. About $150,000. W. S. Holmes Co., Lansing, archts.

Mich., Springwells—Municipal—Village, c/o B. F. Esper, clk., Michigan Ave., receiving bids building 2 story, 56 x 72 ft., with two 40 x 72 ft. wings, rein.-con., brick and stone, rein.-con. flooring, concrete foundation, on Michigan Ave. and Schaffer Rd. About $165,000. M. R. Burrowes, 2631 Woodward Ave., Detroit, archt. A. De Rosiers, 2631 Woodward Ave., Detroit, engr. Noted July 14.

Ill., Champaign — Horticultural — Until Sept. 1, by Illinois State University, and Holabird & Roche, archts., 104 South Michigan Ave., Chicago, building 2 story, rein.-con. and brick. About $200,000. Noted Aug. 18.

Ill., Chicago—Apartment—P. F. Olsen, archt. and owner, 127 North Dearborn St., receiving bids building 3 story, 120 x 125 ft., brick, concrete and stone, on North Clark St. and North Shore Ave. About $175,000.

Ill., Chicago—Apartment — Ronneberg, Pierce & Hauber, archts., 10 South La Salle St., receiving bids building 3 story, 127 x 197 ft., brick and stone, on Irving Park Blvd. and Lowell Ct. About $150,000. W. H. Wallis & Co., 4156 Irving Park Blvd., owner's agents.

Ill., Joliet—Club—Until Sept. 6, by Knights of Columbus, Council 385, 305 North Chicago Ave., and Zimmerman, Saxe & Zimmerman, archts., 64 East Van Buren St., Chicago, for 4 story, 109 x 112 ft., brick, stone, steel and rein.-con. on Webster and Chicago Sts. here. About $225,000. Noted June 16.

Ill., Newton—High School—Until Aug. 30, by F. J. & P. Coen, archts., 105 North Clark St., Chicago, building 2 story, 78 x 125 ft., rein.-con. and brick, for Bd. Educ., c/o J. C. Hicks. About $150,000.

Ill., Oak Park—Hospital—Until Sept. 1, by Holmes & Flinn, archts., 8 South Dearborn St., Chicago, building 5 story, 50 x 100 ft., rein.-con. and brick addition at 506 North Austin Ave., for West Suburban Hospital, c/o E. J. Hockaday, supt., 300 North Clinton Ave. About $150,000. Noted Oct. 28.

Ill., Oak Park—Hotel—H. Raeder, archt., 20 West Jackson Blvd., receiving bids building 8 story, 150 x 170 ft., rein.-con., steel and brick, on Park and Erie Sts., for Oak Park Hotel Co., c/o archt. About $1,500,000.

Wis., Cedar Grove—School—Until Sept. 6, by School Dist. 1, building 2 story, 60 x 125 ft., rein.-con., steel, brick and tile, brick foundation. M. J. Domaster clk. J. G. Chandler, Racine, archt.

Wis., Milwaukee — Apartment — J. Hunholz, 2310 Vliet St., receiving bids building 4 story, 45 x 112 ft., brick and concrete, rein.-con. flooring, plain foundation, on Cedar and 15th Sts. About $150,000. Private plans. Noted June 9.

Tex., Beaumont—Office—Until Aug. 28, by Sanguinet, Staats & Gottlieb, archts. and engrs., 718 Carter Bldg., Houston, building 14 story, brick, steel and stone, for San Jacinto Life Insurance Co. About $1,000,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Mass., Chicopee—School—Church of Nativity let contract building 2 story, brick, concrete and steel, on Chicopee St., to F. T. Ley & Co., 499 Main St., Springfield. About $150,000. Noted May 5.

★**Conn., Ansonia**—School—C. H. Pine, Manual School let contract building 2 story, concrete, brick and steel, rein.-con. flooring, on Clifton Ave., to M. A. Durrschmidt, Main St., Derby. About $150,000. Noted Mar. 17.

★**Conn., Bristol** — Bank — Bristol Natl. Bank, 247 Main St., let contract building 3 story, 40 x 108 ft., limestone, brick and steel, on Main St., to F. T. Ley & Co., Inc., 499 Main. St., Springfield, Mass. About $150,000. Noted Mar. 3.

★**Conn., Hartford**—Office—Orient Insurance Co., 20 Trinity St., let contract building 5 story, 48 x 98 ft., rein.-con., brick and steel addition, rein.-con. flooring, on Clinton St., to M. Eidlitz & Sons Co., 30 East 42nd St., New York City. About $350,000. Noted June 16.

★**Conn., New Haven**—Laboratory—Yale University let contract building 3 story, brick, stone, steel and concrete, on Prospect St., to Thompson-Starrett Co., 49 Wall St., New York City. About $1,500,000.

★**Conn., Waterbury** — Bank — Colonial Trust Co., 81 West Maine St., let contract for alterations and additions to building on West Maine and Leavenworth Sts., to Griswold Co., 101 Park Ave., New York City. About $150,000.

★**N. Y., Brooklyn**—Apartment—S. Leselbaum, c/o E. M. Adelsohn, archt. and engr., 1778 Pitkin Ave., will build 4 story, 100 x 100 ft., brick, steel and stone, concrete foundation, on Sutter Ave. About $200,000. Work will be done by day labor.

★**N. Y., Brooklyn**—School—Bd. Educ., 500 Park Ave., New York City, let contract building P. S. 183, P. S. 184 and P. S. 186, here, to T. A. Clarke Co., 122 Livingston St., $2,317,000. Noted Aug. 13.

★**N. Y., Long Island City**—High School—C. B. J. Snyder, supt. School Bldgs., Municipal Bldg., New York City, let contract completing and finishing the general construction of addition to and alterations in Bryant High School, on Wilbur Ave. between Academy and Radde Sts., to J. Schlesinger, Inc., 259 West 90th St., New York City, $160,400. Noted Aug. 11.

★**N. Y., New York**—Apartment—Six Ten West 110th St. Corp., 2458 Grand Ave., will build 14 story, 100 x 100 ft., brick, steel and stone, concrete foundation, on Cathedral Parkway near Bway. About $1,000,000. Work will be done by day labor. L. Gerbino, pres. Private plans.

★**N. Y., New York**—Apartment—G. S. Johnson, 30 East 42d St., will build 5 story, 100 x 120 ft., brick, steel and stone, concrete foundation, on East 156th St., Bronx. About $180,000. Work will be done by day labor. C. Kreymborg, 2534 Marion Ave., archt. and engr.

★**N. Y., New York** — Apartment — P. J. Kearns, 2306 Creston Ave., will build 5 story, 90 x 140 ft., brick, steel and stone, concrete foundation, on Walton Ave. and Hawkstone, Bronx. About $250,000. Work will be done by day labor. C. Schaefer, 304 East 150th St., archt. and engr.

★**N. Y., New York**—Apartment—A. Klein, c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., will build 5 story, brick, steel and stone, concrete foundation, at 610 West 164th St. About $250;000. Work will be done by day labor.

★**N. Y., New York**—Apartment—C. Mark Realty Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build 5 story, 90 x 116 ft., brick, steel and stone, concrete foundation, on University Ave. and 192d St., Bronx. About $200,000. Work will be done by day labor.

★**N. Y., New York** — Apartment — West 89th St. Realty Corp., c/o G. F. Pelham, archt. and engr., 200 West 72d St., will build 9 story, brick, steel and stone, concrete foundation, at 318 West 89th St. About $300,000. Work will be done by day labor.

★**N. Y. Rochester** — Apartment — E. B. Wolfe & Co., Rector Bldg., Chicago, let contract building superstructure and masonry work of 10 story, 186 x 236 ft., rein.-con., concrete foundation, on East Ave., here, to E. V. Johnson & Co., 20 West Jackson Blvd., Chicago; plumbing work, to Barr & Creelman, 72 Exchange St.; carpentry work, to J. Luther & Sons, 87 Stillson St. Total cost, $2,000,000.

N. Y., Rochester—School—J. M. Tracy, supt. Bd. Educ., received bids for carpentry work and painting 3 story, 47 x 85 ft., rein.-con. and brick, rein.-con. flooring, plain foundation, on Colvin St., from L. J. Held, 206 Arlington Bldg.; heating and ventilating work, from Barr & Creelman, 72 Exchange St.; plumbing work, from A. Alexander Co., 272 State St. Total cost, $250,000.

★**N. Y., Rochester**—Schools—Bd. Educ. let masonry contracts for P. S. 43, 2 story, 132 x 182 ft., on Lyell Ave., to A. Fredericks & Son, 710 Lake Ave., total cost, $293,000; 2 story addition to P. S. 33, on Grand Ave., to Rankin Constr. Co., 195 Hawley St., total cost $150,000; P. S. 1, 2 story, on Hillside Ave., to Gorsline & Swan, 243 Powers Bldg., total cost $248,000. All above rein.-con., brick and steel, concrete foundations. Noted May 5.

★**N. J., Atlantic City**—Bank and Office—Chelsea Natl. Bank, South Carolina and Atlantic Aves., let contract building 4 story, 70 x 100 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on South Carolina Ave., to F. Warren, 132 South 17th St., Phila. About $300,000. Noted June 16.

★**N. J., Princeton**—Art—Princeton University let contract building 3 story, 35 x 166 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to Matthews Constr. Co., Alexander St. About $350,000.

★**Pa., Phila.**—Bank—Walnut St. Savings & Trust Co., c/o H. C. Hodgens, archt., 130 South 15th St., let contract building 7 story, 18 x 94 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Walnut and Juniper Sts., to Pennsylvania Realty & Constr. Co., c/o H. C. Hodgens, 130 South 15th St. About $212,000.

★**Pa., Pittsburgh**—Exchange—Bell Telephone Co., c/o I. H. Kennard, 17 East Arch St., Phila., let contract building 3 story, 62 x 120 ft., rein.-con., brick and steel, rein.-con. flooring concrete foundation, on Highland Ave. and Rural St., to W. T. Grange Constr. Co., Keenan Bldg. About $355,000.

★**Va., Richmond**—Office, etc.—Methodist Episcopal Church South let general contract building 5 story, 50 x 60 x 120 ft., concrete, steel and brick, on 5th and Grace Sts., to Wise Granite Co., Amer. Natl. Bank Bldg. About $185,000.

★**O., Alliance**—Hospital—City let contract building 3 story, brick, steel and concrete addition, to H. J .Conrath, Erie, Pa. About $175,000. Noted July 28.

★**O., Cleveland**—Apartment—L. Feldman, 10309 Barrett Ave., let contract building 3 story, 37 x 165 ft., brick and timber, brick foundation, on East 83d St. and Cleveland Ave., to Cooper & Berkowitz, Linn Dr. About $150,000. Noted June 9.

★**O., Cleveland Heights** (Warrensville P. O.)—School—Bd. Educ., Lee Rd., let contract building 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Taylor Rd., to Hearn Constr. Co., 4500 Euclid Ave., Cleveland, $303,560. Noted Aug. 18.

O., Cleveland — School — Bd. Educ. received bids Aug. 15, building 2 story, 18 room, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on East 126th St. and Abell Ave., from Tenbusch-Parker Constr. Co., 1836 Euclid Ave., $124,287; Drummond-Miller Co., 4500 Euclid Ave., $128,930; H. F. Juergens Co., 1450 Clarence Ave., Lakewood, $130,300. Noted July 28.

★**Mich., Northville**—Sanatorium—Detroit Bd. Health, 1415 St. Antoine St., Detroit, let contract building 2 story, concrete, brick and steel addition, concrete foundation, to W. E. Wood Co., 1805 Ford Bldg., Detroit, $163,600. Noted June 16.

★**Mich., Royal Oak**—Schools—Bd. Educ. Dist. 7 let contract building 2 story, rein.-con., brick and steel, concrete foundation, on Berkley Ave., to N. A. Starr, 112 Howarth Bldg. About $150,000. Noted July 28.

★**Mich., Saginaw**—School—West Side Bd. Educ. let general contract building 3 story, 115 x 125 ft., rein.-con., brick and stone, to Spence Bros., Brewer Bldg. About $700,000.

★**Ill., Champaign** — Hospital — Bd. Trustees, c/o F. Isner, chn., let contract building 3 story, 102 x 109 ft., rein.-con., brick and stone addition, to A. W. Stoolman, Woman's Residence Hall, University of Illinois. About $200,000.

★**Ill., Chicago**—Apartment—M. Martin, 153 East Chicago Ave., let contract for 3 story, 75 x 177½ ft., brick, stone and concrete, at 216 East Pearson St., to McLennan Constr. Co., 3105 Calumet Ave., $205,000.

Buildings (Continued)

★**Ill., Chicago**—Ballroom—Lambert Tree Estate, 138 North La Salle St., let contract building 1 story, 125 x 160 ft., brick and stone, on Madison and Hamlin Sts., to L. Balin Constr. Co., 528 South Clark St. About $300,000.

★**Ill., Chicago**—Bath House—H. Kaplan, 2607 West Walton Pl., let contract building 2 story, 164.4 x 532 ft., brick and stone, at 2039 West North Ave., to Gamm Bros. Constr. Co., 133 West Washington St., $175,000.

★**Ill. Chicago**—Hotel—E. Rosing, 133 West Washington St., let contract building 12 story, 120 x 124 ft., rein.-con., brick, stone and steel, on Diversey and Pine Sts., to J. Stutt, 2625 Eastwood Ave. About $1,500,000.

★**Ia., Le Mars**—Hospital—Sacred Heart Hosptal Assn. let contract building 4 story, 105 x 172 ft., rein.-con., brick and stone, to Riesche & Sanborn, 514 Jackson St., Sioux City, $202,000. Noted Aug. 11.

★**Kan., Abilene**—Hospital—Dickinson Co. Memorial Hospital let contract building 3 story, 38 x 119 ft., to J. Gosling, Ry. Exch. Bldg., Kansas City, Mo. About $150,000. Noted July 21.

★**Kan., Topeka**—Dormitory—State Industrial School for Boys, c/o J. A. Kimball, mgr., let contract building 2 story, 56 x 200 ft., brick, stone and rein.-con., to G. Senne, 518 Kansas Ave. About $150,000.

Neb., Omaha — High School — Bd. Educ. opened bids July 28, building 4 story, 210 x 240 ft., rein.-con. and stone, on Burt and Cunnings Sts., from F. P. Gould & Sons, City Natl. Bank Bldg., $2,297,000; Fleischer Constr. Co., Builders Exch., Minneapolis, Minn., $2,300,000; J. Black Constr. Co., 36th and Harbey Sts., $2,300,000. Noted July 14.

★**Mo., Kansas City**—Office—E. T. Platt, Stock Exch. Bldg., let contract building 5 story, 50 x 110 ft., at 1423 Baltimore St., to Mosby-Goodrich Constr. Co., New York Life Bldg. About $175,000.

★**Tex., Denton** — Music Hall — State let general contract building 1 story, 116 x 150 ft., concrete and brick, at College of Industrial Arts, to Central Contg. Co., 408 Slaughter Bldg., Dallas, about $140,500; wiring, to Martin-Wright Elec. Co., 308 East Houston St., San Antonio; heating and plumbing, to Universal Heating Co., Dallas. Total cost about $165,000.

★**Tex., Houston** — B. Zindlers Sons let contract building 4 story, brick, terra cotta and concrete, on Congress and Fannin Sts., to Central Contg. Co., 408 Slaughter Bldg. About $200,000.

★**Tex., Kerrville**—Hospital—State let contract constructing 1st unit, including administration building, 2 ward buildings, superintendent's home, dormitory and warehouse, to Walsh & Burnes, 302 Calcaisieu Bldg., San Antonio, about $2,000,000. Noted July 28.

★**Tex., San Antonio**—Bank—Frost Natl Bank, East Military Plaza, let contract building 12 story ("L" shape), rein.-con., to J. Haynes, Moore Bldg., San Antonio, about $900,000. Noted July 28.

★**Wash., Seattle** — Store — Grunbaum Bros., 5th and Pike Sts., let contract building 4 story, 120 x 180 ft., rein.-con. and steel, on 6th and Pine Sts., to Sound Constr. Co., Lowman Bldg., about $350,000.

★**Que., Montreal**—Hotel—Mount Royal Hotel Co., St. Catherine St. W., let contract building 10 story, 130 x 230 x 310 ft. concrete, brick and steel on Peek St., to Thompson & Starrett Co., 51 Wall St., New York City. About $6,500,000.

★**Que., Montreal**—Medical—McGill College, Sherbrooke St., let contract building 6 story, 65 x 72 x 175 ft., on Milton St., to E. G. M. Cape & Co., 10 Cathcart St. Cost between $350,000 and $400,000.

★**Que., Montreal**—School—Protestant Bd. School Comrs., University St., let contract building 2 story, 110 x 159 ft. concrete, brick and stone, on Wolsley St., to D. G. Loomis & Co., 211 McGill. St. About $100,000.

★**Ont., Toronto**—College—University of Toronto, Queens Park, let contracts building 4 story, 65 x 225 ft., rein.-con., brick or stone, rein.-con. flooring, concrete foundation, carpentry to J. C. Scott, 206 River St.; masonry to H. N. Dancy & Son, 22 College St. Total cost about $300,000. Noted July 21.

Our 100 Correspondents

are picked men. Applications are continually being received from all parts of the United States and Canada, and from these the best are accepted. Some of our Construction News correspondents have been with us for years, and one or two new ones are "put on" every week. One of our biggest jobs is the upkeep of our Correspondent Staff.

It ought to be thoroughly understood by engineers, contractors, material men, and by all others who make constant use of these pages, that

every item we publish is verified

This essential fact cannot be too positively stated, because *Engineering News-Record* is spending much money and more effort to keep these pages as clear as possible of error and to render its readers

a reliable business-getting service

Our correspondents are not lightly selected. Before appointing a new man we send him a set of printed instructions and sample blanks and advise him to digest this literature thoroughly before writing us again. Those who stand this test, who after studying the job before them still believe they are sufficiently qualified to serve us, are promptly put to work.

Every report sent in by a correspondent gives the source of his information, and as much detail as may be available. If in the opinion of our office force there is the slightest question as to authenticity, or if essential details are omitted, the report is returned with a notation on the back of it. We are in continual communication with our correspondents, and they are imbued with the spirit of

our two watchwords—accuracy and timeliness

When an important item of business information is both accurate and timely it has another quality which embraces the two just named, and it is this third and comprehensive quality which we aim to achieve in these pages—

Usefulness

Federal Government Work

PROPOSED WORK

R. I., Newport—Refrigerating Equipment—Spec. 4499—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids installing, here.

N. J., Camden—Dredging—U. S. Engineer, 815 Witherspoon Bldg., Phila., Pa., rejected bids opened June 28, dredging Delaware River, here. Noted July 7.

D. C., Wash.—Dispensary—Spec. 4486——Bureau Yards & Docks, Navy Dept., soon receives bids constructing, here. Noted June 30.

Va., Yorktown—Cranes—Spec. 4509—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to purchase 10-ton hand operated overhead cranes.

Va., Yorktown—Power House, etc.—Spec. 4498—Bureau Yards & Docks, Navy Dept., Wash., D. C., soon receives bids constructing power house, dispensary, reservoir, and railroad siding, here. Noted Aug. 4.

Va., Yorktown—Power Plant Equipment—Spec. 4508—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to purchase and install, here.

W. Va., Wheeling—Double Houses—U. S. Engineer rejected bids opened July 27, building at Dams 14 and 26, Ohio River. Noted July 7.

Kan., Leavenworth—Power Plant Improvements—U. S. Government, Wash., D. C., plans to construct new building at Federal Penitentiary, here, about $30,000, also purchase and install engines, to cost $15,000 and boilers, $100,000. W. I. Biddle, warden.

Ariz., Whipple Barracks—Hospital—Treas. Dept. Wash., D. C., plans to construct, here. J. W. Wetmore, acting superv. archt.

BIDS DESIRED

R. I., Newport—Waterproofing Walls, etc.—Until Sept. 6, by Treas. Dept., Wash., D. C., waterproofing exterior walls, cornices, etc., U. S. Post Office and Custom House, here. J. A. Wetmore, superv. archt.

N. J., Lake Denmark—Power Plant Improvements, etc.—Spec. 4501—Until Aug. 31, by Bureau Yards & Docks, Navy Dept., Wash., D. C., improving power plant and fire protection system, here. Noted Aug. 4.

Va., Norfolk—Quay Wall—Spec. 4491—Until Aug. 31, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing section, at Navy Yard, here. C. W. Parks, ch. Bureau.

N. C., Greensboro—Alterations to Post Office—Until Sept. 6, by Treas. Dept., Wash., D. C., altering basement, first, second and third floors, in U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

La., Alexandria—Refrigerating Plant—Until Sept. 6, by Treas. Dept., Wash., D. C., constructing in kitchen and mess building, U. S. Public Health Serv. Hospital 27, here. J. A. Wetmore, acting superv. archt.

Ind., Muncie—Alterations to Post Office—Until Sept. 1, by Treas. Dept., Wash., D. C., altering U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Mich., Detroit—Dredging, etc—Until Sept. 19, by U. S. Engineer Office, for dredging and rock excavation in Livingston's Channel, Detroit River.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★R. I., Providence—Removing Boulders—U. S. Engineer let contract removing boulders, at Point Judith Harbor of Refuge, to J. S. Packard Dredging Co., 1004 Turks Head Bldg., $22,620. Noted July 7.

N. Y., Buffalo—Dredging—U. S. Engineer, Federal Bldg., received bids dredging in Black Rock Channel at foot of Georgia St., here, from Dunbar & Sullivan, Dime Bank Bldg., Detroit, Mich., $374,565; Amer. Constr. Co. Marion Bldg., Cleveland, O., $375,564; Great Lakes Dredge & Dock Co., Morgan Bldg., $414,170. Noted July 21.

★N. Y., New York—Removal of Wreck—U. S. Engineer, 1st Dist., Room 710, Army Bldg., 39 Whitehall St., let contract removing wreck of Steamer Port Phillip, to Sloan Danahower & Co., New York City, $71,717.

★Del., Wilmington—Dredging—U. S. Engineer let contract dredging Smyrna River, here, to Delaware Dredging Co., Colonial Trust Bldg., Phila., $9,930. Noted July 21.

D. C., Bellvue—Chimney—Spec. 4483—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing, here, (1) work complete, from Weber Chimney Co., 1452 McCormick Bldg., Chicago, $4,250 (100 days); Rust Eng. Co., 1406 G St., N. W., Wash., D. C., (1) $5,895 (75 days), alternate $4,935 (using rein.-con.), $5,640 (red brick); Amer. Chimney Corp., 147 4th Ave., New York City, (1) $6,745 (45 days). Noted Aug. 4.

Va., Norfolk—Hospital—Treas. Dept., Wash., D. C., received bids constructing U. S. Public Health Service Hospital, here, from North Eastern Constr. Co., 101 Park Ave., New York City, $318,936; Charlottesville Lumber Co., Charlottesville, $319,360; Gooch-Williams Co., Norfolk, $324,946. Noted Aug. 4.

Va., Norfolk—Mechanical Equipment—Treas. Dept., Wash., D. C., received bids furnishing for U. S. Public Health Serv. Hospital, here, from J. R. Proctor, Inc., 120 Liberty St., New York City, $189,000; G. E. Eng. Co., 449 West 42d St., New York City, $194,900; Federal Heating Co., 310 13th St., N. W., Wash., D. C., $206,599. Noted Aug. 4.

Va., Quantico—Elevated Water Tanks—Spec. 4506—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing at Marine Barracks, here, from Pittsburgh-Des Moines Steel Co., Munsey Bldg., Wash., D. C., $7,200 (120 days); R. J. Mansfield, 135 William St., New York City, $8,997 (120 days); Chicago Bridge & Iron Co., 30 Church St., New York City, $9,800 (120 days).

★Va., Yorktown—Water and Sewerage Systems—Spec. 4449—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing at Navy Mine Depot, here, to B. Pizzimento, 2555 Rhode Island Ave., N. E., Hyattsville, Md., $87,260. Noted Aug. 18.

★Va., Yorktown—Water Tanks and Towers—Spec. 4357—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing, at Naval Mine Depot, here, to Pittsburgh-Des Moines Steel Co., 959 Munsey Bldg., Wash., D. C., $14,970 (120 days). Noted Aug. 18.

★La., New Orleans—Levee Work—Mississippi River Comn., 4th Dist., let contract constructing Palmyra Levee, to J. W. Noble, Fayette, Miss., $9,010.

★Tenn., Nashville—Warehouse—U. S. Engr. let contract constructing brick and fabricated steel warehouse, on Cumberland River, to G. B. Howard & Co., 148-B 4th Ave., N., $11,989. Noted June 3.

Ill., Chicago—Deep Wells—Treas. Dept., Wash., D. C., received bids constructing 2 deep wells at Broadview Hospital, here, from J. P. Miller Artesian Well Co., 428 Orleans St., $75,800 (300 days); F. M. Gray, Jr. Co., 175 West Jackson Blvd., $79,500 (365 days); W. H. Cater Contg. Co., 2643 West Monroe St., $90,000 (150 days).

Miscellaneous

PROPOSED WORK

Transmission Line—Niagara Falls, N. Y.—Niagara Falls Power Co., Canal Basin, plans to build 18 mi. transmission line, including hydraulic tunnel and cable installation under streets. Abou $11,000,000. J. L. Harper, Canal Basin, ch. engr.

Electric Lights, etc.—North Bergen, N. J.—Hudson Co., (Jersey City) had plans prepared placing clusters of lights along "island" in Hudson Blvd. between Fisher Ave. and Bergen Co. line. About $30,000. F. J. Radigan, Court House, Jersey City, engr.

Grain Elevator—Louisiana, Mo.—Louisiana Elevator Co., c/o J. W. Rule, plans to build grain elevator, concrete, with 25 bu. capacity. About $25,000. Engineer not selected.

Track Sheds, etc.—St. Joseph, Mo—Chicago, Burlington & Quincy R.R., 547 West Jackson St., Chicago, having plans prepared for pit track shed, 170 ft. high, 36 x 91 ft. work house, 47 x 61 ft. pit track shed, one 5,000 bu. capacity dryer and one 100,000 bu. capacity dryer, here. About $200,000. Burrell Eng. Co., 327 La Salle St., Chicago, engrs.

Power Development — Timmins, Ont.—Dept. Pub. Wks., Ottawa, soon receives bids for 10,000 h.p. hydroelectric development in Fort Matachawan Dist. About $500,000. E. D. Lafleur, c/o Dept. Pub. Wks., engr.

BIDS DESIRED

Heating and Ventilating Apparatus, etc.—Newtown (Flushing P. O.), **N. Y.**—Until Sept. 2, by R. W. Rodman, supt. Plant Operation of School Buildings of Bd. Educ., Municipal Bldg., New York City, installing heating and ventilating apparatus in Newtown High School, on Etna Pl., Gerry Ave., Chicago and Parcell Sts., here.

Culverts—Salem, N. J.—Until Sept. 7, by Salem Co., building 3 box culverts on road from Shirley to Mullica Hill (Route 6, Sect. 5, State Highway System). H. B. Keasbey, co. engr.; advertised in this issue.

Bituminous Dressing—Trenton, N. J.—Until Aug. 30 by Bd. Freeholders Mercer Co., Court House, furnishing 50,000 gal. bituminous dressing for Robbinsville-Allentown Rd. About $10,000. H. F. Harris, Court House, engr. Noted Aug. 11.

Breakwater—Racine, Wis.—Until Aug. 30, by H. Basinger, Racine Co. clk., building, 2,100 lin. ft. pile and timber breakwater along Lake Michigan in Mt. Pleasant Twp., for Lake Shore Protection Com., City Hall, Kenosha. About $35,000.

Incinerators—Houston, Tex.—Until Sept. 1, at office of City Secretary, constructing 2 garbage incinerators. E. E. Sands, city engr.

Vitr. Segment Sewer Block, etc.—Ottawa, Ont.—Until Aug. 30, by A. F. McCallum, comr. Pub. Wks., furnishing vitr. segment sewer block and rein.-con. pipe to lay 3,345 lin.ft. 36-42 in. sewers.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Asphalt Road Oil, etc.—Brooklyn, N. Y.—E. Riegelmann, boro pres., Boro Hall, let contract furnishing and delivering 100,000 gal. asphalt road oil, to Standard Oil Co., 26 Bdway., New York City, $5,040; 129,300 ft. B. M. lumber, to East River Mill & Lumber Co., 92nd St. and East River, $6,198; manhole head and covers, to Campbell Fdry. Co., 313 Manor Ave., Harrison, N. J., $2,932. Noted July 28.

Road Oil—Long Island City, N. Y.—M. E. Connolly, pres. Queens Boro, 58 Hunterspoint Ave., opened bids Aug. 16, furnish- and delivering 100,000 gal. road oil (for cold use) to Bureau of Highways, from Texas Co., 17 Battery Pl., New York City, $0.0525 per gal., total cost $5,250; Standard Oil Co. of New York, 26 Bway., New York City, $0.05 6/10, $5,600.

★Bituminous Material—New York, N. Y.—H. H. Curran, pres. Manhattan Boro, let contract furnishing and applying 10,000 gal. bituminous material to surface Riverside Dr. from 158th to Dyckman Sts., to Barrett Co., 17 Battery Pl., $1,450. Noted July 7.

★Pier and Platforms—New York, N. Y.—M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., North River, let contract building pier and platforms on outshore portion of Brooklyn Bridge Impvt., Boro. of Manhattan, Contr. 1694, to G. B. Spearin, Inc., 90 West St., $322,236. Noted July 21.

Station Finish—New York, N. Y.—Transit Comn. opened bids Aug. 16, for station finish work for part of 14th St—Eastern Rapid Transit R. R., from A. W. King, 81 East 125th St., $240,256; D. C. Serber, 1123 Bway., $240,400; N. Dresser, $251,836.

Test Borings — Phila., Pa. — Delaware River Joint Bridge Comn., Weidner Bldg., opened bids making test borings for proposed bridge over Delaware River, (a) sinking casing on land, (b) sinking casing in river, (c) core boring on land, (d) core boring in river (e) dry samples as ordered, from Penn. Drilling Co., 1812 West Carson St., Pittsburgh, (a) $3 per lin. ft., (b) $5.50, (c) $4, (d) $5.50, (e) $2; Ridpath & Potter Co. 22nd and Cambria Sts., (a) $4, (b) $5.50, (c) $6.50, (d) $7.50, (e) $5; Sprague & Henwood, Phila., (a) $4, (b) $7, (c) $5, (d) $8, (e) $1.50. Noted July 28.

★Swimming Pool—Huntington, W. Va.—State Bd. Control, Charleston, let contract constructing 2 swimming pools, heating and lighting new gymnasium at Marshall College, here, to F. C. Welch & Co., Clarksburg, $29,986.

★Crane — Detroit, Mich. — Dept. Pub Wks. let contract furnishing one 6 ton electric traveling crane with 52 h.p. motor, 2 yd. clamshell bucket, to Northern Eng. Wks., 210 Chene St. About $10,700. Noted July 14.

★Lighting Conduits—Detroit, Mich.—Pub. Lighting Comn., Atwater St., let contract furnishing and installing lighting conduits for public lighting system on various streets, to A. J. Penote Co., 424 Victoria Bldg., $268,134.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 5	Birmingham, Mich.	Sept. 1
Sept. 5	Fremont, Neb.	Sept. 1
Sept. 6	Kittaning, Pa.	Aug. 18
Sept. 6	Coon Valley, Wis.	Sept. 1
Sept. 7	Bristol, Conn. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 7	New York, N. Y.	Sept. 1
Sept. 9	Essex Fells, N. J. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 13	Prairie du Chien, Wis.	Sept. 1
Sept. 14	Central Islip, N. Y. Adv. Sept. 1.	Sept. 1
Sept. 15	Ashland, Ky.	Sept. 1
Sept. 16	Abilene, Tex.	Aug. 25
Sept. 16	Abilene, Tex. Adv. Sept. 1.	Sept. 1
Oct. 7	Collinsville, Ill. Adv. Sept. 1.	Sept. 1

SEWERS

Sept. 6	Canton, S. D.	Aug. 18
Sept. 6	Opelousas, La.	Aug. 18
Sept. 6	St. Louis, Mo.	Aug. 18
Sept. 6	Albany, Minn.	Aug. 25
Sept. 6	Palmyra, N. J.	Aug. 25
Sept. 6	Canton, S. D.	Sept. 1
Sept. 6	Morton, Ill.	Sept. 1
Sept. 13	Passaic, N. J.	Aug 25
Sept. 16	Austin, Minn. Adv. Sept. 1.	Sept. 1
Sept. 19	Hamilton, Ont. Adv. Sept. 1.	Sept. 1
Sept. 20	—Garfield, N. J.	Sept. 1

BRIDGES

Sept. 6	Trenton, N. J.	Aug. 25
Sept. 6	Lawrence, Kan.	Sept. 1
Sept. 7	Kingman, Kan.	June 30
Sept. 7	Muscatine, Ia.	Aug. 25
Sept. 7	New Jersey	Aug. 25
Sept. 7	Coffee, Que.	Sept. 1
Sept. 7	Perth Amboy, N. J. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 9	Oskaloosa, Kan.	Sept. 1
Sept. 12	Middlebourne, W. Va.	Aug. 25
Sept. 12	Hummelstown, Pa.	Sept. 1
Sept. 12	Madisonville, Tex. Adv. Sept. 1.	Sept. 1
Sept. 13	Maryland Adv. Sept. 1.	Sept. 1
Sept. 15	London, Ont.	Aug. 25
Sept. 16	Columbus, O.	Aug. 25
Sept. 22	Akron, O.	Sept. 1

EXCAVATION AND DREDGING

Sept. 6	Mason City, Ia.	Aug. 11
Sept. 6	Oskaloosa, Ia.	Aug. 25
Sept. 8	Aitken, Minn.	Aug. 18

STREETS AND ROADS

Bids Close		See Eng. News-Record
Sept. 6	California	Aug. 25
Sept. 6	Seattle, Wash.	Aug. 18
Sept. 6	Burlington, N. J.	Aug. 18
Sept. 6	Minneapolis, Minn.	Aug. 18
Sept. 6	Grundy Center, Ia.	Aug. 25
Sept. 6	New Jersey Adv. Aug. 25 and Sept. 1.	Aug. 25
Sept. 6	Vicksburg, Miss.	Aug. 25
Sept. 6	Slayton, Minn.	Aug. 25
Sept. 6	Hot Springs, S. D.	Aug. 25
Sept. 6	Fresno, Cal.	Sept. 1
Sept. 6	Hutchinson, Kan.	Sept. 1
Sept. 6	Weston, W. Va.	Sept. 1
Sept. 6	Los Angeles, Cal.	Sept. 1
Sept. 6	Colorado	Sept. 1
Sept. 6	Hiawatha, Kan.	Sept. 1
Sept. 6	Long Island City, N. Y.	Sept. 1
Sept. 7	Aitkin, Minn.	Aug. 25
Sept. 7	Muscatine, Ia.	Aug. 25
Sept. 7	Raleigh, N. C.	Sept. 1
Sept. 7	New York, N. Y.	Sept. 1
Sept. 8	Le Mars, Ia.	Sept. 1
Sept. 8	Virginia	Sept. 1
Sept. 9	Alabama	Aug. 18
Sept. 9	Long Island City, N. Y.	Sept. 1
Sept. 9	Phila., Pa.	Sept. 1
Sept. 9	Missouri	Sept. 1
Sept. 10	North Carolina	Sept. 1
Sept. 10	Nova Scotia	Sept. 1
Sept. 12	Louisiana	Aug. 25
Sept. 12	Wash., D. C. Adv. Sept. 1.	Sept. 1
Sept. 13	Sparta, N. J. Adv. Sept. 1	Sept. 1
Sept. 15	Nelson, Neb.	Sept. 1
Sept. 16	Junction City, Kan.	Aug. 25
Sept. 16	Junction City, Kan.	Sept. 1
Sept. 19	Clarksville, Tex.	Aug. 25
Sept. 20	New Orleans, La.	Sept. 1
Sept. 27	New Orleans, La.	Sept. 1

INDUSTRIAL WORKS

Sept. 5	Phila., Pa.	Sept. 1
Sept. 6	Ocean City, N. J. Adv. Sept. 1.	Sept. 1
Sept. 7	Harrisburg, Pa. Adv. Aug. 18 to Sept. 1.	Aug. 18

BUILDINGS

Sept. 6	Lincoln, Neb.	July 21
Sept. 6	Mankato, Minn.	Aug. 18
Sept. 6	Joliet, Ill.	Aug. 25
Sept. 6	Perrysburg, N. Y.	Aug. 25
Sept. 6	Cedar Grove, Wis.	Aug. 25
Sept. 6	Bloomington, Ill.	Sept. 1
Sept. 6	Peoria, Ill.	Sept. 1
Sept. 7	Ravenna, O.	Aug. 25
Sept. 7	Brooklyn, N. Y.	Sept. 1
Sept. 7	Detroit, Mich.	Sept. 1
Sept. 7	Des Moines, Ia.	Sept. 1
Sept. 8	Pittsburgh, Pa.	Aug. 25
Sept. 8	Detroit, Mich.	Sept. 1
Sept. 9	Ravenna, O.	Aug. 4
Sept. 9	Akron, O.	Sept. 1
Sept. 10	El Reno, Okla.	Sept. 1
Sept. 10	Chester, Pa.	Sept. 1
Sept. 10	Tuscola, Ill.	Sept. 1
Sept. 10	Danville, Ill.	Sept. 1
Sept. 12	Shelby, Mich.	Aug. 25
Sept. 12	Stevens Point, Wis.	Sept. 1
Sept. 15	Detroit, Mich.	Aug. 25
Sept. 15	Fairfield, Ia.	Sept. 1
Sept. 15	Rockford, Ill.	Sept. 1
Sept. 15	Tyler, Tex.	Sept. 1
Sept. 16	Great Bend, Kan.	Aug. 11
Sept. 16	Kearney (Arlington P. O.) N. J.	Aug. 18
Sept. 20	Detroit, Mich.	Aug. 25
Sept. 22	Warrensville, O.	Sept. 1
Sept. 26	Cheyenne, Wyo.	Sept. 1
Oct. 1	Williamsport, Pa.	Aug. 4

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Sept. 2	Barges—Pittsburgh, Pa. Adv. Aug. 11 to Sept. 1.	Aug. 11
Sept. 5	Wreck Removal — Norfolk, Va.	Aug. 11
Sept. 5	Steel Barges — Memphis, Tenn. Adv. Aug. 11 to Sept. 1.	Aug. 11
Sept. 6	Alterations to Post Office—Greensboro, N. C.	Aug. 25
Sept. 6	Water-proofing Walls—Newport, R. I.	Aug. 25
Sept. 6	Refrigerating Plant—Alexandria, La.	Aug. 25
Sept. 7	Dredging—Phila., Pa.	
Sept. 7	Quay Wall Extension—San Diego, Cal.	Aug. 11
Sept. 7	Riprapping Dike — Mare Island, Cal.	Aug. 11
Sept. 7	Dredging and Filling, etc.—San Diego, Cal.	Aug. 11
Sept. 7	Crane—South Boston (Boston P. O.), Mass.	Aug. 11
Sept. 7	Crane — Puget Sound, Wash.	Aug. 11
Sept. 12	Wicket Irons, etc. — Cincinnati, O. Adv. Sept. 11.	Sept. 1
Sept. 14	Pumping Units — Denver, Col.	July 28
Sept. 14	Power Plant Equipment — Yorktown, Va.	Sept. 1
Sept. 15	Airship Hangar—Belleville, Ill. Adv. Aug. 18 to Sept. 1.	Aug. 18
Sept. 19	Dredging—Detroit, Mich.	Aug. 25
Sept. 21	Machine Shop—Pearl Harbor, H. T.	Aug. 11
Sept. 22	Emergency Dams — Seattle Wash. Adv. Aug. 11 to Sept. 1.	Aug. 11
Sept. 26	Hydraulic Dredge — Phila., Pa. Adv. Sept. 1.	Sept. 1

MISCELLANEOUS

Sept. 5	Fire Hydrants—Detroit, Mich	Sept. 1
Sept. 6	Pipe-Haworth, N. J. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 6	Cast Iron Pipe—St. Paul, Minn.	Sept. 1
Sept. 6	Pipe—Hiawatha, Kan. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 6	Levee—Frankfort, Ky. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 6	Standpipe System—Detroit Mich	Sept. 1
Sept. 7	Dredge—Belzoni, Miss.	Aug. 11
Sept. 7	Culverts—Salem, N. J. Adv. Aug. 18 to Sept. 1.	Aug. 25
Sept. 7	Core Borings—New Britain, Conn. Adv. Aug. 25 and Sept. 1.	Sept. 1
Sept. 7	Subway—Aurora, Ont.	Sept. 1
Sept. 8	Standpipe — Belchertown, Mass. Adv. Sept. 1.	Sept. 1
Sept. 9	Piers—Phila., Pa.	Aug. 18
Sept. 12	Garbage Disposal—Providence, R. I.	Aug. 11
Sept. 12	Docks—Houston, Tex.	Sept. 1
Sept. 17	Railway Ties — Toronto, Ont.	Aug. 11
Sept. 28	Crane—New York, N. Y. Adv. Sept. 1.	Sept. 1

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Pa., Morrisville—Boro. plans to build filtration plant. About $72,000. F. S. Hoagland, mayor.

Pa., Phila.—Water Bureau receives bids within 90 days, laying 20,000 ft. 6, 8 and 12 in. water pipe in various streets. About $100,000. F. Caven, dir.

Ill., Glenellyn—City having plans prepared laying 4-6 in. water mains in various streets. About $25,000. G. G. Nelson, Spurling Bldg., Elgin, engr.

Ill., Pittsfield—City having plans prepared for purification plant and addition to waterworks. Caldwell Eng. Co., Ayers Bank, Jackson, engrs.

Mo., Hamilton—City having plans prepared for water works system. About $75,000. E. T. Archer & Co., New England Bldg., Kansas City, engrs. Noted Aug. 11.

Waterworks (Continued)

Okla., Pawhuska—City election Sept. 6, to vote on $177,000 bonds for 2,000,000 gal. tank and 1,500,000 gal. filtration plant, and laying 20,000 lin. ft. 12 in. pipe. H. G. Olmsted & Co., Tradesmans Bank Bldg., Oklahoma City, engrs. Noted June 26.

BIDS DESIRED

Conn., Bristol—Until Sept. 7, by Bd. Water Comrs., 201 City Hall, New Britain, for sinking tubular wells near White Bridge here, J. D. Williams, city engr; advertised in this issue.

N. Y., Central Islip—Until Sept. 14, by State Hospital Comn., Capitol, Albany, for an artesian well and additional water supply at South Colony Power Plant, Central Islip Hospital, here. L. F. Pilcher, state archt.; advertised in this issue.

N. J., Essex Fells—Until Sept. 9, by Boro, Boro Hall, furnishing c. i. pipe, Contr. A; laying 6 and 10 in. c. i. pipe and constructing 200,000 gal. reservoir, Contr. B. P. L. Braunworth, 671 Broad St., Newark, N. J., consult. engr.; advertised in this issue.

N. J., Garfield—Until Sept. 20, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, constructing part of Sect. 19, Garfield-Wallington-Passaic Branch Intercepting Sewer, consisting of Garfield River-Crossing, here and Passaic, involving earth excavation, dredging and refilling, in trench and open excavations, for 30 in. c.i. pipe line crossing Passaic River, laying 30 in. c.i. pipe line across Passaic River, 130 cu.yd. concrete masonry, 10,000 lb. reinforcing steel, etc. J. R. Van Duyne, ch. engr.

Ky., Ashland—Until Sept. 15, by Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, building 3,000,000 gal. water filtration plant, 500,000 gal. rein.-con. reservoir and timber room over same, laying 1 mi. 12 in. and 1½ mi. 6 and 8 in. c.i. pipe, here. About $160,000. E. C. Means, Ashland, Bd. Water Comrs.

Mich., Birmingham—Until Sept. 5, by W. H. Brown, village clk., furnishing 3 types (centrifugal, rotary and plunger) motor driven deep well pumps for waterworks plant. About $25,000.

Ill., Collinsville—Until Oct. 7, by City Council, furnishing and installing 2 steam pumps, also sinking 2 wells, for municipal waterworks system. J. Bailey, clk; advertised in this issue.

Wis., Coon Velley—Until Sept. 6, by J. Sather, clk., building rein.-con. high service water reservoir, to have 100,000 gal. capacity. W. S. Woods, Batavian Bank Bldg., LaCrosse, engr.

Wis., Milwaukeee — Until Sept. 9, by Central Bd. Purch., furnishing 1,928 ton straight c.i. pipe, 241 ton straight c.i. pipe, lugged, 376 ton special castings and six 24-54 in. gate valves. Noted July 7.

Wis., Prairie-du-Chien—Until Sept. 13, by Alford & Burdick, engrs., 8 South Dearborn St., Chicago, building 1 story, irregular shaped brick pumping station, concrete pit, gasoline engine centrifugal pump and drilling 3 wells, here. About $70,000. F. R. Honzel, city clk.

Neb., Fremont—Until Sept. 5, by F. L. Burrell, Comr. City Light & Water Dept., furnishing 20,512 lin.ft. Class B, 4-6 in. c.i. pipe, 13 pieces 6 in. x 12 ft. Class B c.i. spigots, twenty four 4-6 in. gate valves, and boxes, and fifteen 6-in. fire hydrants, etc., for waterworks system.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Pa., Pittsburgh—City received bids relining northerly portion of reservoir No. 2, in Highland Park, gunite and rein.-con., from A. V. Purnell, 507 Jarvella St., $27,310; J. T. Barr, 1600 Princess St., $29,621; J. F. Casey Co., Union Arcade, $36,775.

★Pan., McPherson—City let contract building 110 ft. steel water tank, to Stucker & Stracker, Lawrence, $38,900.

★Wis., River Falls—City let contract building concrete pump house, filter basin and pumps to J. W. Hildred Co., 1019 Commerce Bldg., St. Paul, Minn., at $9,844. Noted Aug. 11.

★Mont., Browning—City let contract building 125 ft. steel tower with 75,000 gal. tank, drilled well, pump house and equipment, also laying 5,000 lin.ft. 6 in. c.i. mains, to Two Miracle Concrete Co., 437 Ford Bldg., Great Falls. About $55,000.

★Okla., Tulsa—City let contract extending waterworks system involving 2,500,000 gal. settling basin, 12,000,000 gal. low service pump, 6 filter units, etc., to Tibbets & Pleasant, Inc., New Daniel Bldg. About $129,000. Noted Aug. 4.

★Ont., Richmond Hill—City let contract laying 3 mi. 6 and 8 in. c.i. water mains, to F. F. Fry, 43 Scott St., Toronto. furnishing c.i. pipe, to Natl. Iron Corp., Cherry St., Toronto; elevated steel tank to Canadian Des-Moines Steel Co., Inches St., Chatham; filter equipment to Genl. Supply Co., 38 Toronto St., Toronto; filter building pumphouse and dam to Reid & Somers, Elora, etc. Total cost $100,000.

Sewers

PROPOSED WORK

Mich., Negaunee—City having preliminary plans prepared building sewerage system in various streets. Hoad & Decker, Ann Arbor, engrs.

O., Columbus—Franklin Co. having plans prepared for 4 mi. 24-39 in. sewer from Goodall St. and Olentangy River to Upper Arlington, cost $186,000; also 2½ mi. 12-24 in. sewer covering easterly side of territory, $43,000. E. G. Bradbury, Gugle Bldg., engr.

O., Dayton—Montgomery Co. plans to build 12,000 ft. 6-30 in. vitr. sewer in Overlook Sanitary Sewer Dist. 1, involving about 20,000 cu.yd. earth trenching and 175 manholes. About $157,000. K. B. Allen, U. B. Bldg., engr.

O., Portsmouth—City having plans prepared for intercepting and relief sewers. About $350,000. Pearse, Greeley & Hansen, 39 West Adams St., Chicago, Ill., engrs.

Ill., Downers Grove—City having plans prepared building sewage disposal plant. About $125,000. E. Otto and E. Maple, Downers Grove, engrs.

Minn., Lewiston—City having plans prepared for sanitary sewerage system in various streets. About $40,000. Druar & Milinowski, 500 Globe Bldg., St. Paul, engrs.

Minn., Rochester—City receives bids in October, building trunk line sanitary sewers in various streets, involving 10,000 lin.ft. 15-24 in. vitr. tile, 5,000 lin.ft. sewer pipe and small septic tank. About $100,000. C. H. Armstrong, city engr.

Mo., Burlington Junction—City having plans prepared for vitr. title sewers and water mains in various streets. About $25,000. E. T. Archer & Co., New England Bldg., Kansas City, engrs.

Mo., Monett—See "Miscellaneous."

BIDS DESIRED

N. Y., New York—Until Sept. 7, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., Crotona Park, Tremont and 3rd Aves., Bronx, constructing sewer and appurtenances in Dean Ave. between Barkley and Layton Aves.

Ill., Morton—Until Sept. 6, by city, c/o J. E. Gerger, pres., and B. F. Smith, engr., Court House, Pekin, building storm drain sewerage system, Dist. 1, involving 8 to 30 in. glazed sewer pipe and 30 to 45 in. manholes.

Minn., Austin—Until Sept. 16, by F. R. Smith, city recorder, constructing main intercepting sewer from point near Austin gas plant parallel with and adjacent to Red Cedar River, to site of proposed pumping station; sanitary sewers in Dobbins St. and Bowman Ave. A. B. Overland, city engr.; advertised in this issue.

S. D., Canton—Until Sept. 6, by City, building storm sewer system in various streets. About $25,000. G. Hokenstad, clk. Smith & Reeves, Mitchell, engrs. Noted Aug. 18.

Ont., Hamilton—Until Sept. 19, by S. H. Kent, city clk., building storm overflow sewers, Sects. 1 and 2. E. R. Gray, city engr.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., let contract building sewers in portions 76th St. (Lott Ave.), etc., and 76th St. (Lott Ave.), to A. Paino, Corona, $34,084 and $37,829 respectively; 76th St. (Lott Ave.), etc., to P. J. Clancy, 460 Lockwood St., Astoria, $40,783; Ferguson St., etc., to Green Contg. Co., 734 Vernon Ave., Astoria, $122,497. Noted Aug. 18.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, 68 Hunters point Ave., opened bids Aug. 24, building sewers in (1) Central Ave., etc., (2) Manor Ave., etc., (3) Metropolitan Ave., etc.; receiving basins in (4) four corners of Boulevard and Bovine St., 1st Ward, from A. Paino, Corona (1a) $149,477, (1b) $139,570; Seaside Contg. Co., Inc., (1a) $151,218, (1b) $152,365, (3a) $47,881, (3b) $44,230; Litchfield Constr. Co., 280 Madison Ave., New York City, (1b) $71,129; F. Frey, 818 Ocean Parkway, Brooklyn, (1a) $158,201, (1b) $163,839; F. L. Paino, (1b) $117,118; F. Spinelli, 142 Jefferson St., Brooklyn, (2) $3,641, (3b) $21,953; J. H. Johnson Co., (2) $3,835; J. F. Clancy, Inc., 460 Lockwood St., Astoria, (2) $4,562; J. Jennings Bay 134th St., Belle Harbor, (3a) $29,201; Kennedy & Smith, Inc., 93 Amity St., Flushing, (3b) $33,347, (4) $1,661; Green Contg. Co., 734 Vernon Ave., Astoria, (4) $1,960. Noted Aug. 18.

★Pa., Phila.—City let contracts building sewers in sections of Buist Ave., Brill, C, Ella, Earnest, Folsom, 54th, 55th and Granite Sts., to J. Lombardi, Lincoln Bldg., cost $32,345; Olney and Paschall Aves., Hegerman, Howell, Kip, Mifflin, Porter, St Bernard, 67th and Tioga Sts., to R. Lombardi, Lincoln Bldg., $36,272; Atlantic St., to C. D. Land, 28th and Cambria Sts., $1,214; Snyder Ave. Bambrey and 15th Sts., to C. Riccardi, 1226 South Juniper St, $8,461; Beaumont Ave., to Higgins & Reilley, Real Estate Trust Bldg., $3,290; Chester Ave., to A. A. Pastore, 5903 Woodland Ave., $1,309; Dittman St., to Curtis Bros, Tacony Bank Bldg., $2,568; Emery St., to N. Coscetti, 2037 West Venango St., $3,925; Emily, Hope, McKeen, Seigel, 70th, 30th and Vine Sts., to W. H. Yettman, Jr., Lincoln Bldg., $23,271; F and Westmoreland Sts., to F. T. Buckins, Jr., 4050 Kensington Ave., $8,789; Fisher Ave., Hegerman, 12th and Walker Sts., to J. J. McHugh, 1617 Race St., $20,663; 59th St. and Lebanon Ave., to Girard Underpinning & Constr. Co., 2930 Diamond St., $34,045; Hancock St., to M. Mattia, 263 North Simpson St., $504; Hartwell and Snyder Aves., Ruscomb, 17th and 3rd Sts., to P. Ellis, 3342 North 11th St., $46,276; Latona St., to P. DeMayo, 826 Fitzwater St., $4,766; Reese St., to A. De Sandro, 3906 5th St. N., $2,867; Roosevelt Blvd., to D. Silvestri, 5830 Magnolia Ave., $2,610; St. Bernard St., to C. H. Parker, 1018 Pine St., Darby, $2,783; 13th St., to J. Perma, 362 North 65th Ave., $5,022; 28th St., to E. Leva 3851 North 10th St., $1,162. Noted July 28.

Mich., Detroit—City received bids building laterals as follows: (1) 3393, (2) 3427, (3) 3500, (4) 3505, (5) 3507, (6) 3509, (7) 3512, (8) 3514, from Langley & Barton, 3714 Lincoln Ave., (1) $26,200.

C. R. Lennane & Co., Union Trust Bldg., (1) $20,035.

Western Constr. Co., 1208 Ford Bldg., (1) $21,522, (2) $2,979, (8) $45,646.

Detroit Drainage Constr. Co., 400 Penobscot Bldg., (2) $2,974, (3) $31,191, (4) $8,900, (5) $4,923, (7) $3,340.

R. D. Baker, 1631 Elmhurst Ave., (2) $3,000, (6) $2,375.

Liberty Constr. Co., 36 State St., (3) $29,800, (4) $7,890, (5) $4,719, (6) $2,747, (8) $52,250.

W. Blanck & Co., 927 Ford Bldg., (3) $32,344, (8) $52,000.

E. L. McIntyre, Grand River Ave., (4) $8,450.

V. Teetaert, 448 St. Clair Ave., (5) $5,363.

A. DeFazio & Son, 4909 Holcomb Ave., (6) $2,700.

N. DiPonio, 11532 Goodwin Ave., (7) $3,800.

H. Fortuna, 4422 St. Aubin Ave., (7) $3,150.

★Mich., Iron Mountain—Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, Ill., let contract building 9 mi. sanitary sewers, involving 8, 10 and 12 in. tile pipe, 204 concrete manholes, sewage pumping station and 2 pumps, to J. J. Bacco, Iron Mountain, $85,351.

Mont., Billings—City received bids trenching and laying storm sewers in Burlington, Alderson and Grand Aves., Impvt. Dist. 190, involving 9,407 lin.ft. 10-36 in. pipe, from F. E. Evans, Billings, $44,474; Security Bridge Co., 502 North 42nd St., $48,000.

★Mo., Monett—City let contract laying sewers in various streets, to M. E. Giullioz, Monett, $25,165. Noted July 21.

★Ont., Niagara Falls—City let contract building 1 mi. Muddy Run Sewer, involving 42-54 in. concrete pipe, to Johnston Bros., 43 Market St., Brantford. About $238,000 Noted July 14.

Bridges

PROPOSED WORK

North Carolina—State Highway Comn., Raleigh, plans to build 300 ft. rein.-con. bridge across South River, State Project 596, Cumberland Co. About $35,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans to build bridge over Haul

Bridges **(Continued)**

River, near **Trollingwood, rein.-con. or steel,** State Project 576 Alamance Co., cost $150,000; 300 ft. bridge over Toe River, near Spruce Pine, State Project 643, Mitchell Co., $25,000; concrete bridge over Yadkin River, State Project 600, Davidson Co., $100,000; 50 ft. bridge over Cold Camp Creek and 6 smaller bridges, State Project 622, Robeson and Columbus Counties, $80,000. C. M. Upham, state highway engr.

N. C., Kinston—Lenoir Co. plans to construct 300 ft. steel bridge (Edwards Bridge), over Moccasin River, between Green and Lenoir Counties. About $25,000. E. V. Webb, Kinston, co. highway comr.

Mich., Detroit—City soon receives bids building concrete and steel bridge, on Harbor Ave., and Congress St. approaches. About $26,500. J. Reid, Municipal Courts Bldg., engr.

Mich., Sebewaing—State Highway Dept., Lansing, plans to build Bridge 322301, with 75 ft. concrete girder span, with high abutments, here. F. F. Rogers, Comr.

Kan., Wichita—Sedgwick (Wichita) and Harvey (Newton) Counties had plans prepared constructing 2 span 125 ft. rein.-con. arch on county line. About $50,000. M. Rosenberry, Wichita, engr.

BIDS DESIRED

N. J., Perth Amboy—Until Sept. 7, by State Highway Comn., Broad Street Bank Bldg., Trenton, repairing Amboy Bridge, over Raritan River, on State Highway Route 4, Between here and South Amboy. A. L. Grover, Trenton, ch. clk.; advertised in this issue. Noted Jan. 6.

Pa., Hummelstown—Until Sept. 12, by H. W. Gough, controller Dauphin Co., rebuilding Bridge 125-26, over Swartara Creek, rein.-con., 100 ft. long. About $140,000.

Maryland—Until Sept. 13 by State Rds. Comn., 601 Garrett Bldg., Baltimore, building bridges in Cecil, Howard and Prince George counties. Advertised in this issue.

Virginia—See "Streets and Roads."

O., Akron—Until Sept. 22, by Bd. Comrs. Summit Co. constructing 70 ft. substructure and superstructure concrete girder bridge on West North St., to have 2 span, involving 600 cu.yd. excav., 400 sq.yd. brick pavement, 210 cu.yd. rein.-con., 260 cu.yd. concrete, 18 ton reinforcing steel, cost $17,940; substructure and furnishing and placing 60 ft. steel plate girder bridge on 65-B-8, involving 160 cu.yd. excav., 120 cu.yd. concrete, 25 ton structural and 2 ton reinforcing steel, etc., $11,402. C. J. Costigan, Court House, engr.

Kan., Emporia—See "Streets and Roads".

Kan., Oskaloosa—Until Sept. 9, by Bd. Comrs., Jefferson Co., building 7 rein.-con. bridges and culverts with 5-40 ft. spans. About $25,000. W. M. Irwin, Oskaloosa, engr.

Kan., Lawrence—Until Sept. 6, by B. L. Wolf, engr. Douglas Co., constructing 170 ft. steel span, over Wakaruse River, 26 ft. roadway. About $40,000. G. C. Brune, co. clk.

Tex., Madisonville—Until Sept. 12, by A. H. Menefee, co. judge, building about 988 lin.ft. creosoted timber bridges in Madison Co. J. M. Brownlee, Jr., secy.; advertised in this issue. Noted July 7.

Que., Coffee—Until Sept. 7, by A. F. Stewart, ch. engr. Canadian Natl. Ry., Moncton, N. B., building single track railway bridge, over Coffee River, 1 mi. west of here. About $30,000.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Conn., Bridgeport—Dept. of Pub. Wks. let contract repairing and strengthening Cogress St. bridge, over Pequonnock River, rein.-con., to Stuart & Sons Co., 222 Pearl St., Newtonville, Mass. About $38,000. Noted Aug. 25.

★Conn., New London—City let contract constructing concrete bridge, on Crystal Ave. (New London approach to Thames River bridge), to Holbrook Co., Westbrook, $27,607. Noted Aug. 25.

N. Y., Rexford—C. S. Cadle, supt. Pub. Wks., Capitol Bldg., Albany, opened bids Aug. 24, building bridge across Mohawk River, between here and hamlet of Aqueduct, from Lathrop, Shea & Henwood Co., Ellicott Sq., Buffalo, $81,667; Amer. Pipe & Constr. Co., North Broad St., Phila., $83,357; Scott Bros., Arlington Blk., Rome, $86,086. Noted Aug. 18.

N. Y., Waterloo—C. S. Cadle, supt. Pub. Wks., Capitol, Albany, received bids Aug. 24, building bridge across Old Cayuga and Seneca canal at Virginia St. here, from Lathrop, Shea & Henwood, Ellicott Sq., Buffalo, at $22,228; E. W. Foley Contr. Corp., Waterloo, $22,359; McGregor & Corbett, Herkimer, $23,535. Noted Aug. 18.

★New Jersey—State Highway Comn., Broad St. Bank Bldg., Trenton, let contract building Bridge K on Route 4, over Jobs Creek, south of Tuckerton, Burlington Co., and Bridges 12 and 14, also Culverts 9, 11 and 13, on Route 12, Sect. 3, between Phillipsburg and Washington, Warren Co., to C. S. Edwards, 1 Exchange Pl., Jersey City, $14,800 and $34,000 respectively. Noted Aug. 11.

North Carolina—State Highway Dept., at div. office Marion, received bids building bridges, on State Project 571, McDowell Co., from Prayton-Howton-Wood Concrete Co., Albany, Ga., $84,210, C. W. Lacy, Wilmington, $85,480, Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., $88,880. Noted Aug. 11.

★Fla., West Palm Beach—Bd. Comrs. of Palm Beach Co., let contract building bridge over Lake Worth, 1,885 ft. long, to A. S. Hecker Co., 822 Lee Bldg., Kansas City, Mo. About $284,000.

★Ia., Centerville—Appanoose Co. let contracts building concrete bridges as follows: Bridge 21, to Iowa Bridge Co., 712 Hubbell Bldg., Des Moines, $34,187; Bridge 22, Standard Bridge Co., 1302 City Natl. Bk. Bldg., Omaha, Neb., $4,229; Bridges 1 to 37, except foregoing, Cameron, Joyce & Co., Keokuk, $14,173.

Excavation and Dredging

PROPOSED WORK

Ill., Mt. Carmel—Ditch and Levee—Wabash Co. having plans prepared building 13 mi. D.D., concrete levee and pumping stations, Dists. 6 and 7. About $200,000. G. C. Harvey, Court House, engr.

Minn., Mankato—Ditch—Blue Earth Co., soon receives bids building Judicial Ditch 38, 40 and 41, involving 8-42 in. tile. About $30,000, $38,000 and $60,000 respectively. R. H. Allison, Mankato, engr.

Minn., Mantorville—Ditch—Dodge Co. having plans prepared building Co. Ditch 5. About $55,000. R. Allison, Mankato, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Ill., Chicago—Excavation, etc.—Dubin & Eisenberg, archts., 14 West Washington St., let contract excavating and building foundation of home and nursery, on California Ave. and Hirsch Blvd., for Daughters of Zion Infants Home and Day Nursery, 1441 Wicker Park Ave., to Waldman Constr. Co., 1725 West North Ave., $25,000. Noted June 23, under "Buildings."

★Ia., Ottumwa—Drainage and Levee—F. W. Prosser, aud. Wapello Co., let contract building drainage ditch and improving levee, Dist. 1, (Soap Creek) Wapello and Davis Counties, involving 124,142 cu. yd. excav. and 26,055 cu.yd. earth, to Harness Bros., Ottumwa, $0.16 per cu.yd. for channel and $2.50 per cu.yd. for loose rock excav.; $0.18 per cu.yd. for earth embankment. Noted July 7.

Streets and Roads

PROPOSED WORK

N. J., Camden—Bd. Freeholders Camden Co. plans to resurface and widen 2 mi. Browning Rd., from 10 to 20 ft. About $25,000. J. G. Albertson, Magnolia, engr.

Fla., Jacksonville—City had plans prepared paving 4 mi. Main St., brick or asphalt. About $240,000. F. M. Edwards, city engr.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, drain, grade, topsoil, and build bridges on 17 mi. State Project 618, Sampson Co., about $100,000, 12.5 mi. State Project 569, Hyde Co., $90,000; grade, drain and topsoil 3.9 mi. State Project 515, Nash Co., $32,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, grade, drain and topsoil 10.1 mi. State Project 632, Yadkin and Surry Counties, cost $90,000, 8 mi. State Project 635, Rutherford Co., $36,000, 14.3 mi. road from Sylva to Macon Co. line, State Project 615, Jackson Co., $143,000, 10.2 mi. State Project 556, Davie Co., $90,000, 11½ mi. State Project 553, Watauga Co., $108,000, 10.6 mi. State Project 552, Cleveland Co., $95,000, 13.2 mi. State Project 551, Caldwell Co., $125,000, 12½ mi. State Project 554, Mitchell Co., $125,000; clear, grub, grade, drain, bridge and topsoil 12 mi. State Project 557, Madison Co., $180,000, 13 mi. State Project 548, Clay Co., $195,000; grade, drain, topsoil and bridge 5 mi. State Project 636, Madison Co., $50,000, 8 mi. State Project 637, Macon Co., $100,000; grade, drain, pave with concrete or some asphaltic material 11.1 mi. State Project 588, Catawba Co., $333,000; grade, drain and pave with some type hard surface 5.9 mi. State Project 646, Wilkes Co., $180,000; pave with plain or rein.-con., or some asphaltic type, 2 mi. State Project 634, Cleveland Co., $60,000. C. M. Upham, state highway engr.

N. C., Elizabeth City—Pasquotank Co. plans to build roads and bridges. About $250,000. W. C. Woodley, Elizabeth City, chn. co. highway comn.

N. C., Newton—Catawba Co. plans to pave 1 mi. road from city limit of Hickory toward Brookford, bitulithic. About $30,000. N. Wyantt, Hickory, co. comr.

N. C., Winton—Hertford Co. voted $500,000 bonds to build roads and bridges. J. B. Worrell, chn. co. highway comn. Noted June 30.

Ill., Chicago—Bd. Local Impvts., City Hall, plans to pave Marshfield Ave., from 83rd to 87th Sts., asphalt on 6 in. concrete base, involving 37,600 sq.yd. paving, 24,960 lin.ft. combination curb and gutter. About $300,000. C. D. Hill, ch. engr.

Ill., Elgin—City having plans prepared paving, curbing and guttering State and North Liberty Sts., asphalt on concrete base. About $25,000. W. H. Brightman, City Hall, engr.

Ill., Joliet—City plans to pave Young Ave. and Clay St., asphalt, with concrete curb and gutters. About $50,000. P. Beck, clk. A. S. Calkins, Joliet Natl. Bank, engr.

Ill., Parnell—City having plans prepared paving various streets, vitr. brick on concrete base. About $77,000. Holbrook-Warren & Andrews, Decatur, engrs.

Ill., Roodhouse—City having plans prepared grading and surfacing various streets, macadam. About $25,000. Caldwell Eng. Co., Ayers Bank, Jackson, engrs.

Ill., Waukegan—Lake Co. having plans prepared surfacing Sects. "P" and "Q," Rockland Rd., concrete and macadam. About $45,000. C. E. Russell, supt. C. M. Powell, Waukegan, engr.

Mich., Detroit—City plans to grade and pave various alleys, 18-20 ft. wide, with one course rein.-con. About $93,010. C. W. Hubbell, city engr.

Kan., Downs — City having plans prepared surfacing 16 blocks of various streets, vitr. brick on concrete base. About $48,000. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs.

Kan., Eldorado—Butler Co., c/o W. Blair, clk., having plans prepared surfacing 10½ mi. Federal Aid Project 90, brick on concrete base. About $250,000. H. Austin & Co., Eldorado, engrs.

Kan., Emporia—Lyons Co. had plans prepared grading and draining Sects. A and D, involving 105,560 sq.yd. concrete pavement, 9,100 cu.yd. borrow, 53,115 cu.yd. earth, 458 cu.yd. solid rock and 97 cu.yd. loose rock excav., constructing bridge with one 45 ft., one 46 ft. and two 30 ft. T girders, on Sect. K. W. R. Ruggles, Emporia, engr.

Mont., Livingston—City soon receives bids paving various streets, involving 4,100 cu.yd. excav., 12,100 sq.yd. paving, and 5,000 lin. ft. curb. Bids on vitr. brick, concrete, asphaltic concrete, wood block and bithulithic, desired. About $45,000. C. T. Sackett, city engr.

Mo., Monett—See "Miscellaneous."

Mo., Plattsburgh—T. Jennings, clk. Clinton Co., soon receives bids improving 4 mi. Clinton-Deepwater Rd., 18 ft. wide, 2 mi. concrete and 2 mi. chat. About $60,000. T. Parks, Court House, co. engr.

Mo., St. Louis—City plans to pave various alleys, lettings 1112-1217, vitr. brick on concrete base. About $38,400. E. R. Kinsey, dir. Pub. Serv. Engineer's name withheld.

Utah—State Highway Comn., Salt Lake City, plans to gravel surface 8 mi. Federal Aid Project 10, Uinta Co., 18 ft. wide. About $55,000. I. R. Browning, Capitol, state highway engr.

Streets and Roads (Continued)

BIDS DESIRED

N. Y., Long Island City—Until Sept. 9, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., 68 Hunterspoint Ave., regulating and repaving Crescent St. at Bridge Plaza South, 1st Ward, granite block on concrete foundation; Metropolitan Ave. from Juniper Ave. to Lilac St., 5th St., from Jackson to Greenpoint Aves., Second Ward, Louona Ave., from Corona Ave. to Long Island R.R., Second Ward, 1st Ave. from 1st to 3d Sts., and from 10th to 13th Sts. (College Point), 3d Ward, sheet asphalt on concrete foundation; resurfacing 1st Ave. from Bway. to Grand Ave., 8th Ave., from Graham to Jamaica Aves., 1st Ward, sheet asphalt block pavement with sheet asphalt by heater method and repaving where necessary with concrete foundation; regulating, grading and laying sidewalks where necessary in Arcadia Ave. from 14th to 16th Aves.; regulating, grading, curbing and laying sidewalks in Ely Ave. from Jane St. to Harris Ave., preliminary pavement of old granite block on sand foundation; curbing and laying sidewalks in Howland St. from Wolcott to Ditmars Aves., 1st Ward; regulating and paving Cornelia St. from Cypress to Myrtle Aves., permanent granite block on concrete foundation; laying sidewalks in 36th St., from Roosevelt to Polk Aves., 2d Ward; regulating and grading sidewalk spaces and laying sidewalk in 5th St. from Jackson to Stryker Aves., also regulating and grading Jackson and Roosevelt Aves. and westerly sidewalk space between Woodside and Roosevelt Aves., curbing where necessary Jackson to Roosevelt Aves., laying sidewalk space from Woodside to Roosevelt Aves.

N. Y., Long Island City—Until Sept. 9, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., 68 Hunterspoint Ave., regulating, grading and paving with preliminary pavement of rein.-con., constructing ramps, culverts, drains, etc., in Rockaway Blvd., from New York Ave. to Nassau Co. line.

N. Y., New York—Until Sept. 7, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., Crotona Park, Tremont and 3rd Axes., Bronx, regulating, grading, setting curb, laying sidewalks and crosswalks, building inlets, receiving basins, drains, culverts, approaches and guard rails where necessary in Ford St. from Webster to Tiebout Aves.

N. J., Sparta—Until Sept. 13, by Township grading Sparta-Woodport Rd., Sussex Co. H. Snook, engr.; advertised in this issue.

Pa., Phila.—Until Sept. 9, by F. H. Caven, dir. pub. wks., grading and paving various streets, with asphalt, and repaving with redressed granite block. F. C. Dunlap, ch. Bureau of Highways.

D. C., Wash.—Until Sept. 12, by Dist. Comrs., 509 Dist. Bldg., paving and resurfacing various streets and avenues, sheet asphalt. For further information address Chief Clerk, Engineer Dept., Room 427, Dist. Bldg.; advertised in this issue.

Virginia—Until Sept. 8, by Asst. Highway Comn., 116 South 3rd St., Richmond, improving 6.5 mi. Project 130, State Rd. 21, between Greenwich and Milford Mills, Prince William Co., 3.48 mi. Project 120, State Rd. 16, from New Market, East, Shenandoah Co., water bound macadam, with alternate bids on bituminous macadam; 3.85 mi. Project 76A, State Rd. 10, from Farmville westward, Prince Edward Co., concrete base with penetration macadam top; 8.26 mi. Project 133, Sate Rd. 12, Patrick Co., soil; steel bridge over Chestnut Creek, Project 90, Franklin Co. C. E. Bolling, highway engr.

W. Va., Weston—Until Sept. 6, by Lewis grading 11 mi., involving 93,000 cu.yd. excav.

North Carolina—Until Sept. 10, by State Highway Comn., at div. office Charlotte, clearing, grubbing, grading, draining and paving 7.88 mi. State Project 587 A, Iredell Co., involving 3 acres clearing and grubbing, 29,300 cu.yd. common and 400 cu.yd. rock excav., 850 ft. 12-24 in. terra cotta or concrete pipe, 75 cu.yd. Class B concrete, 83,210 sq.yd. concrete on asphaltic paving, about $260,000; draining, grading and paving 3.02 mi. State Project 630 A, Gaston Co., involving 12,000 cu.yd. common and 700 cu.yd. rock excav., 176 ft. 15 in. terra cotta or concrete pipe, 76 cu.yd. rubble masonry, 31,570 sq.yd. concrete or asphaltic pavement, $100,000. C. M. Upham, Raleigh, state highway engr.

La., New Orleans—Until Sept. 20, by R. M. Murphy, comr. pub. finances, paving sections of 17 streets, involving 104,593 sq.yd. bituminous concrete, bithulithic, refined Trinidad Lake asphalt, sheet asphalt, creosoted wood block, Kentucky rock asphalt, Uvalde rock asphalt or asphalt blocks, 964 sq.yd. concreting clay gravel, chert or bituminous macadam. Noted July 7.

La., New Orleans—Until Sept. 27, by R. M. Murphy, comr. pub. finances, paving Audubon Blvd. from Clairborne to Poplar Sts., Upperline St. from St. Charles Ave. to Daneel St., Poydras St. from Baronne to South Rampart Sts., Chestnut St. from St. Andrew St. to Jackson Ave., Baronne St. from Melompene to Philip Sts. Terpsichore St. from Prytania to Franklin Sts., Dumaine St. from Bayou St. John to North Alexander St., Penn St. from Perdido to Poydras Sts., Carondelet St. from Philip St. to Napoleon Ave., involving 49,370 sq.yd. bituminous concrete, bithulithic, refined Trinidad Lake asphalt, sheet asphalt, creosoted wood block, Kentucky rock asphalt, Uvalde rock asphalt, or asphalt blocks; Magnolia St., from Erato St. to Jackson Ave., Erato St. from South Front to Tchoupitoulas Sts., and Girod St. from South Peters to Magazine Sts., 7,314 sq.yd. small granite block, creosoted wood block or vitr. brick; Law St. from Lafayette Ave. to line of Metropolitan property, Elmira St. from St. Claude Ave. to Florida Walk, 15,500 sq.yd. concreting clay gravel, chert or bituminous macadam.

Mich., Kalamazoo—Until Sept. 15, by Bd. Rd. Comrs. Kalamazoo Co., building highway from here to West Lake, L. J. Wykkel, co. road engr.; advertised in this issue.

Ia., Le Mars—Until Sept. 8, by Auditor Plymouth Co., grading and draining 20 mi. Akron-Le Mars Rd., Sect. A, Federal Aid Project 38, and Primary Rd. Project 39, involving 259,178 cu.yd. excav., 5.146 mi. Wren-Junction-Merrill Rd., 101,900 cu.yd. excav. Iowa Highway Comn., at div. office, Ames, engr.

Kan., Hiawatha—Until Sept. 6, by Brown Co., grading and surfacing 6.801 mi. Sect. A, Federal Aid Project 88, 18 ft. wide, bituminous macadam. About $60,000. S. K. McCrary, Hiawatha, engr.

Kan., Hutchinson—Until Sept. 6, by C. Stewart, clk. Reno Co., grading and paving roads near here, concrete. About $30,000. G. L. McLane, Hutchinson, engr.

Kan., Junction City—Until Sept. 16, by Bd. Comrs. Geary Co. paving 0.657 mi. section of East 6th St. from Missouri, Kansas and Texas R.R. tracks to city limits, involving 2,931 cu.yd. earth excav., 6,934 sq.yd. concrete. About $25,000. P. G. Martin, Junction City, engr.

Neb., Nelson — Until Sept. 15, by city clk., grading, paving, curbing and guttering, various streets, involving 16,908 yd. concrete paving, 10,770 ft. concrete curb and gutter, 5,800 cu.yd. excav., etc. About $63,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Mont., Great Falls—Until Sept. 5, by City Council, guttering and paving Second Ave., N., from 19th to 26th St., involving 1,657 cu.yd. excav., 1,798 sq.yd. concrete curb, 11,492 sq.yd. concrete or gravel bitulithic, on concrete base. Alternate bids on concrete and gravel bitulithic desired. About $50,000. M. L. Morris, city engr.

Missouri—Until Sept. 9, by State Highway Dept., Unionville, paving 5.44 mi. State Rd. from Unionville westward. State Aid Project 20.49 Putman Co. involving 32,745 cu.yd. earth excav., 1,776 cu.yd. borrow, 31.5 cu.yd. Class B and 69.3 cu.yd. Class C concrete masonry etc. About $25,000. Noted Aug. 4.

Colorado—Until Sept. 6, by State Highway Dept., Denver, paving 2½ mi. road southwest of Sterling on Lincoln Highway, concrete, Logan Co., involving 3,550 cu.yd. earth excav., cost $89,443; grading and draining 5.5218 mi. Turkey Creek-Canon Rd. between Morrison and Conifer, Federal Aid 136, Jefferson Co., involving 28,765 cu.yd. earth and 3,550 cu.yd. rock excav., cost $57,991. L. D. Blauvelt, State Museum Bldg., Denver, engr.

Cal., Fresno—Until Sept. 6, by Bd. Suprvs. Fresno Co., paving with bitulithic, topeka, asphalt or concrete pavement on concrete base, Highway on Route 11 Sect. B, involving 858,380 sq.ft. paving, 16,270 cu.yd. earth excav.; Highway on Route 7, Sect. A, involving 420,320 sq.ft. paving, 6,580 cu.yd. earth excav.; Highway on Route 18, Sect. A, involving 665,050 sq.ft. paving 12,050 cu.yd. earth excav. C. Jensen, Fresno, co. surveyor.

Cal., Los Angeles—Until Sept. 6, by Bd. Pub. Wks., paving, curbing and laying sidewalks on Norton Ave., involving 225,000 sq.ft. 6 in. concrete.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Maine—State Highway Dept., Augusta, let contract paving 3.64 mi. Highway "G" in Belgrade, Project 23, Contr. B and 4.93 mi. Highway project 23, Contr. "A," bituminous macadam, to J. Arborio, 82 Church St., New Haven $100,403 and $115,804 respectively; 4.06 mi. highway "H" in Anson, gravel, to R. H. Newell Co., Uxbridge, Mass., $36,606.

★N. H., Nashua—State Highway Dept., Concord, let contract paving 24,000 sq.yd., Maple, Shosta, Hayward and Willow Aves., bituminous macadam, to Winslow & Cummings, Nashua, $34,560.

★Massachusetts—State Highway Comn., Boston let contract paving 6,780 ft. bituminous macadam, 18 ft. wide, in Lynfield, to Hanscom Contr. Co., 70 Kilby St., $45,941; 11,000 ft. in Holden, to G. E. Greenough, South Acton, $52,330. Noted Aug. 25.

★Mass., Pittsfield—City let contract paving section of Fenn St., with concrete and Maplewood Ave., vit. brick, to Mallory & Niggard, Springdale Ave., $14,246 and $17,339 respectively; section of Francis Ave., concrete to D. J. Walsh, 107 Fenn St., $4,671. Noted Aug. 25.

★Conn., Hartford—City let contract paving section of Washington St., sheet asphalt to E. Balf Co., 26 State St., $47,128.

★Conn., New Haven—Bureau of Eng., let contract paving sections of East and Bridge Sts., 1:2:4 batch concrete, to National Concrete Co., 902 Chapel St., $11,190; Munson, Canal and Locke Sts., Edgwood Ave., asphalt to C. W. Blakeslee & Sons, 58 Waverly St. $15,249. Noted Aug. 4.

★New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, let contract improving 3.37 mi. Lotta Rd., from Manitou Beach Rd., Rep. Contr. 3007, Monroe Co., to T. E. Murray, LeRoy, $75,219. Noted Aug. 25.

New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, opened bids Aug. 26, improving (1) 0.46 mi. Riverside Drive, Binghamton, Highway 5377A, Broome Co., (2) 2.61 mi. Cincinnatus Lake Long Pond, Highway 807A, Cortland and Chenango Counties, (3) 2.91 mi. Livingston-Dansville-Conesus, Part 1, Highway 1574, Livingston Co., (4) 6.99 mi. Palmyra-Newark, Highway 8072, Ontario and Wayne Counties, reconstructing (5) 1.26 mi. Rd. 5237, Rep. Contr. 1333, Albany Co., (6) 3.53 mi. Rd. 193, Rep. Contr. 3004, Albany Co., (7) 1.63 mi. Rd. 874, Rep. Contr. 3005, Hamilton Co., (8) 4.87 mi. Rd. 428, Rep. Contr. 3006, Jefferson Co., (9) 4.39 mi. Rd. 494, Rep. Contr. 3011, Monroe Co., (10) 4.55 mi. Rd. 564, 5521 and 5558, Rep. Contr. 3019, Oneida Co., (11) 2 mi. Rd. 5252, Rep. Contr. 1320, Ontario Co., (12) 1.1 mi. Rd. 5084, Rep. Contr. 3003, Rensselaer Co., (13) 6.47 mi. Rds. 1104 and 1200, Rep. Contr. 3009, Steuben Co., (14) 2.29 mi. Rd. 1018, Rep. Contr. 3001, Suffolk Co., (15) 1.76 mi. Rds 5001 and 5114, Rep. Contr. 3008, Ulster Co., (16) 1.28 mi. Rd. 148, Rep. Contr. 3013, Westchester Co., (17) 2.65 mi. Rds 854 and 892, Rep. Contr. 3016, Wyoming Co., from

A. Yesu, Binghamton, (1) $14,281. Tyne & Willey, Binghamton, (1) $15,408. Stento & Serafini, Binghamton (1) $15,705. Lane Constr. Co., 37 Colony St., Meriden, Conn., (2) $78,336. J. F. Stabell Co., 1140 Niagara St., Buffalo, (2) $78,645. H. A. Schaupp, Albany, (2) $80,392. Lathrop, Shea & Henwood Co., 428 Ellicott Sq., Buffalo, (3) $140,646. H. W. Roberts Co., 610 Lansing St., Utica, (3) $141,434. Smith Bros., Inc., Watertown, (1) $142,911, (8) $140,869. J. H. Corbett, Jr., Baldwinsville, (4) $203,272 and $209,342, (11) $33,547, Pathfinder Constr. Co., Inc., Fulton, (4) $210,717. Chambers & Barnes, Rochester, (4) $220,682. Municipal Constr. Co., Utica, (5) $23,198. Willite Road Constr. Co., 51 Chambers St., New York City, (5) $26,744. W. P. McDonald Constr. Co., New York City, (5) $29,228. J. P. Dugan & Co., Inc., Amsterdam, (6) $106,536, (12) $38,558. P. H. Murray, Troy, (6) $107,135. L. D. Sullivan, Utica, (6) $108,286. P. Morford, Fultonville, (7) $26,680. W. J. Semper, Watertown, (8) $141,666. Dale Eng. Co., Mann Bldg., Utica, (8) $142,919, (10) $137,784, (11) $28,901, (13) $101,951, (17) $55,975. W. E. Kinney & Co., Rochester, (9) $77,387. A. A. Howard, Fairport, (9) $79,099; (13) $106,461. J. M. Murray, LeRoy, (9) $80,859, (17) $52,434, A. L. Carey, Rome, (10) $139,753. J. B. Fazio, Oneida, (10) $145,025. G. B. Dickison, Union Bldg., Syracuse, (11) $27,123. D. S. McGrath, Inc., Adams, Mass., (12) $37,244. J. E. Flood, Hudson Falls (12) $37,647, (15) $58,619. F. W. and J. J. Crouch, Rochester, (13) $105,862. R. W.

Streets and Roads (Continued)

S. Corp., New York City, (14) $28,143. E. M. Underhill & Son, Glen Cove, (14) $29,449. L. Mayershon, Albany, (14) $29,586. A. C. Kleisch Co., Haverstraw, (15) $54,941. Spoor-Lasher Co., Inc., 56 Market St., Poughkeepsie, (15) $57,919. Fleming, OBrien & McEntegart, Inc., New York City, (16) $43,904. F. G. Fowler Constr. Co., 77 Carpenter St., Mt. Kisco, (16) $45,700. J. Dimando, Inc., 382 Mamaroneck Ave., Mamaroneck, (16) $42,234. Hendrickson-McCabe Constr. Co., Inc., Syracuse, (17) $57,944. Noted Aug. 18.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, let contract regulating and paving Clermont Ave. also regulating and grading Marion St., to Borough Asphalt Paving Co., 1301 Metropolitan Ave., Brooklyn, $14,902 and $11,591 respectively; 88th (Maple) Ave. and McPherson St., to Cleveland Trinidad Paving Co., Flushing, $9,190 and $5,934 respectively; Manly St., to Kennedy & Smith, Amity St., Flushing, $14,750; regulating and grading Gale St. and Gates Ave., to Welsh Bros., 32 Queens St., $6,151 and $1,995 respectively; Edson St., 93rd and Payntar Aves., to P. J. Clancy, 460 Lockwood Ave., Astoria, $4,365, $5,381 and $9,625 respectively; Linden St., to C. Ranier, $2,281; Hall Ave., to Casalino Contg. Co., 207 North 7th St., Brooklyn, $1,857; 88th (Maple) Ave., to H. E. Kordes Co., 2577 Cooper St., Brooklyn, $3,120. Noted Aug. 18.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., Hunterspoint Ave., opened bids Aug. 24, regulating, grading and paving (1) Rockaway Blvd. from Conduit to New York Ave., 4th Ward, (2) Rockaway Blvd. from New York Ave. to Nassau Co. line, preliminary rein.-con., from Kennedy & Smith, 93 Amity St., Flushing, (1) $60,814; E. B. Simpson, Hempstead Turnpike, Hollis, (1) $63,478; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (1) $71,815, (2) $299,947. Noted Aug. 18.

★N. Y., New York—H. Bruckner, pres. Bronx Boro, let contract paving Findlay Ave., etc., to Uvalde Asphalt Paving Co., 1 Bway., $5,590; East 170th St. to Asphalt Constr. Co., 2197 Madison Ave., $28,512; East 171st St., to Leonard Paving Co., 23 Bway., $7,635; East 156th St., to I. F. Cavaluzzo, 1538 Walton Ave., $5,890; East 149th St., to P. J. Kearns Contg. Co., 2306 Creston Ave., $12,747; Spencer Ave. to Spadaro Contg Co., 827 East 217th St., $11,162; regulating and grading, etc. West 188th St., to Testa Eng. & Contg. Co., $2,034; building sewers in Pelham Parkway North and White Plains Ave., to Anita Constr. Co., 2957 Marion Ave., $53,838 and $3,125 respectively; Osborn Pl., to Estates Contg. Co., $8,790. Noted Aug. 25.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., Municipal Bldg., opened bids Aug. 24, widening and paving (1) 32nd St., etc.; widening, regulating and paving (2) 33rd St., etc., sheet asphalt; regulating and curbing, etc., West 225th (Muscoota) St. from Bway. to Boro line, from Regan Towers Co., 127 West 121st St., (1) $12,677, (2) $12,440; Interboro Asphalt Co., (1) $13,559, (2) $13,331; Sicilian Asphalt Paving Co., 41 Park Row, (1) $14,708, (2) $12,889; Burnside Contg. Co., 270 Burnside Ave., (3) $30,868; C. D. Beckwith Inc., 301 West 108th St., (3) $31,922; Uvalde Asphale Paving Co., 1 Bway., (3) $34,052. Noted Aug. 18.

N. Y., S. I. St. George—C. D. Van Name, pres. Richmond Boro, Boro Hall, opened bids Aug. 24, repaving Richmond Rd., etc., granite block on concrete foundation, from Sax & Leedecke, 114 East 52d St., New York City, $69,116; J. Johnson Sons, West New Brighton, $70,149; C. Vanderbilt, $70,650. Noted Aug. 18.

N. J., Jersey City—H. K. Mauchet, acting city clk., received bids paving (1) Halladay St. between Johnson Ave. and Newark & New York Ry., sheet asphalt on stone block foundation, (2) Wade St. between Ocean and Jackson Aves., sheet asphalt on concrete foundation, from W. T. S. Critchfield, 14th St., Hoboken, (1) 93½% of engineer's estimate ($29,615); Willite Rd. Constr. Co., 51 Chambers St., New York City, (1) 98½%, (2) $38,190; Uvalde Constr. Co., 1 Bway., New York City, (1) 107%.

N. J., Weehawken—Joint Comn. of Weehawken and West Hoboken Twps. received bids paving 10 blocks of Palisade Ave. from Hackensack Plank Rd. to Weekawken St., with bituminous macadam, from W. T. S. Critchfield, 14th St., Hoboken, $82,813; Clinton Contg. Co., 306 Charles St., West Hoboken, $88,147. Noted Aug. 18.

Pa., Phila.—City received bids paving sections of (1) Birch, F, Hancock, Rutledge, Stella and 8th Sts., (2) Bancroft, Carlisle, Christian, Hicks, Mole, Pierce, Rosewood, Watkins Sts., (3) Roosevelt Blvd., Bensalem branch, (4) Fernon, Greenwich, Mountain, Siegel, Watkins, Winton and Wolf, (5) Park Ave., 5th and Greene Sts., (6) Chester Ave., (7) Prentice St., (8) Moyamensing and Bigler Sts., (9) 6th St., (10) Cobbs Creek Parkway, (11) York Rd., 3rd, 9th, 10th, 13th, 15th 41st Sts., (12) 65th Ave., Lawnton and 10th Sts., from

Union Paving Co., 34th and Spruce Sts., (1) $28,232, (2) $31,071, (3) $161,306, (4) $23,778, (5) $23,036, (6) $107,589, (9) $83,212.

Eastern Paving Co., Colonial Trust Bldg., (1) $30,167, (2) $31,219, (3) $170,464, (4) $25,671, (5) $25,173, (7) $10,613, (8) $19,562.

Barber Asphalt Paving Co., Land Title Bldg., (1) $29,963, (2) $30,907, (3) $169,703, (4) $24,573, (5) $23,877, (6) $107,258, (7) $8,764, (8) $16,054.

Mack Paving Co., Mercetown Lane, (6) $110,673, (7) $10,948, (8) $21,785.

Ryan Constr. Co., Real Estate Bldg., (9) $80,708, (11) $65,872.

F. Buckins, Jr., 4050 Kensington Ave., (9) $83,965.

Fish-Rutherford Co. Inc., Land Title Bldg., (10) $151,837, (11) $64,974.

J. J. McHugh, 1617 Race St., (10) $152,765, (12) $16,872.

A. A. Pastore, Lincoln Bldg., (10) $157,862.

Certoni & Mezzola, Lincoln Bldg., (11) $62,806.

T. Connor, 3329 North 5th St., (12) $13,057.

T. L. Flannigan, 1204 East Montgomery St., (12) $19,725.

Pa., Pittsburgh—City received bids repaving (1) Carson St. W., from Point Bridge to Smithfield St., grading, paving and curbing, (2) Shiras Ave. from Palm Beach to Condace Sts., (3) Saranac Ave. from Liberty to Palm Beach Sts., (4) Mackinaw Ave. from Saranac to Wenzell Aves., from J. H. McQuade & Sons Co., Bakewell Bldg., (1) $38,960; M. O'Herron Co., South 1st and McKean Sts., (1) $44,749; Booth & Flinn, Forbes St., (1) $44,780, (2) $27,191, (3) $45,119, (4) $22,689; Dunn & Ryan, Contg. Co., Standard Life Bldg., (2) $29,405, (3) $49,708, (4) $23,398; T. Cronin Co., South 18th St., (2) $29,898, (3) $51,053, (4) $24,439.

★W. Va., Charleston—City let contracts to Southern Eng. Co., Union Trust Bldg., paving, grading and curbing 2,315 lin. ft. Duffy St., Shelton Alley and Columbia Blvd. from Tennessee to Pennsylvania Aves., involving 3,989 sq.yd. asphalt, 2,315 lin. ft. curbing, 2,315 lin. ft. gutter, 1,619 cu.yd. earth excav., cost $28,353; 2,088 lin. ft. Wyoming St. from Colorado to Pennsylvania Aves., Maryland Ave. from Virginia to Roane Sts., 4,281 sq.yd. asphalt, 2,088 lin. ft. curbing, 2,088 lin. ft. gutter, 884 cu.yd. earth excav., $28,468; 12,017 sq.yd. Main St. from Delaware Ave. to Florida St., 12,017 sq.yd. asphalt, 7,137 lin. ft. curbing, 7,137 lin. ft. gutter, 2,183 cu. yd. earth excav., $86,750; 2,253 sq.yd. Columbia Ave. from Virginia Ave. to Charleston St., State St. from Capitol to Summers Sts., 2,253 sq.yd. asphalt, 1,432 lin. ft. curbing, 1,432 lin. ft. gutter, 599 cu. yd. earth excav., $27,904; 2,104 lin. ft. Glenwood Ave. from 6th to West 2nd Sts., 3,521 sq.yd. asphalt, 2,104 lin. ft. curbing, 2,104 lin. ft. gutter, 1,163 cu.yd. earth excav., $25,085; 2,855 lin. ft. Columbia Blvd., Florida and Roane Sts., from Monongalia St. to Pennsylvania Ave., 4,825 sq.yd. asphalt, 2,855 lin. ft. curbing, 2,855 lin. ft. gutter, 1,974 cu.yd. earth excav., $34,560. Noted July 28.

North Carolina—State Highway Dept., at div. office, Elkin, received bids grading, draining and surfacing 3.14 mi. State Project 527, Ashe Co., from Catawba Constr. Co., Hickory, $117,613, Pittman Constr. Co., Rhodes Bldg., Atlanta, Ga., $118,064, Davis Constr. Co., Macon, Ga., $129,007; 14.86 mi. State Project 542, Stokes Co., from J. F. Mulligan Constr. Co., North Wilkesboro, $65,190, J. T. Plott, Greensboro, $72,375, W. E. Graham, Salisbury, $77,459. Noted Aug. 11.

North Carolina—State Highway Dept., at div. office Marion, received bids grading, draining and surfacing 4.97 mi. State Project 505, Mitchell Co., from Fiske-Carter Constr. Co., Greenville, $120,488, Gibson Constr. Co., Knoxville, Tenn., $122,264, Teh Luck Co., Sylva, $124,584; 6.55 mi. State Project 547, Rutherford Co., from Michanx Constr. Co., Albemarle, $30,911, Geer & Wilson, Rutherfordton, $31,960, H. A. Wells Constr. Co., Asheville, $38,890; 7.2 mi. State Project 571, McDowell Co., from J. W. Stepp, Rome, Ga., $33,498, Michanx Constr. Co., Albemarle, $36,622, J. T. Plott, Greensboro, $37,303; 10 mi. State Project 572, McDowell Co., from L. J. Smith Constr. Co., Charlotte, $148,057, J. A. Kreis & Co., Holston Bank Bldg., Knoxville, Tenn., $164,380, J. T. Plott, Greensboro, $168,690. Noted Aug. 11.

★Louisiana—State Highway Dept., New Orleans, let contracts to Carr Constr. Co., Shreveport, building 5 mi. Sect. "A", Leesville-Many Highway, $31,359; 5 mi. Sect. "A", Leesville-Alexandria Highway, $39,339; 5 mi. Sect. "A", Leesville-De Ridder Highway, $31,441; 5 mi. Sect. "A," Leesville-Texas Highway, $44,219. Noted Aug. 4.

★Tenn., Johnson—City let contract paving 40,000 various streets, asphaltic concrete, using Lake asphalt, to Municipal Paving Co., Johnson City, $120,000. Noted July 14.

★Kentucky—State Highway Comn., Old Capitol Bldg., Frankfort, let contract shaping, draining and surfacing 9.6 mi. Winchester-Mt. Sterling Rd., Sta. 0 plus 00 to Sta. 506 plus 52.8, Clark Co., to S. M. Billiter, 407 Mer. Lib. Bldg., Covington, $352,899; 4.5 mi. Louisville-Bardstown Rd. Sta. 238 plus 00 to Sta. 474 plus 00, Jefferson Co., to Louisville Asphalt Co., Floyd & Lee Sts., Louisville, $161,582; 7 mi. Richmond-Lexington Rd. Sta. 0 plus 00 to Sta. 368 plus 60, Madison Co., to G. T. Miller, Lebanon, Ind., $243,287. Noted Aug. 11.

★O., Bexley (Columbus, P. O.)—City let contract grading, draining, curbing and paving 2,500 ft. Dawson Ave. and 3,000 ft. Euclaire Ave., to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $43,083 and $47,718 respectively. Former contracts rescinded. Noted June 9.

★O., Garfield Heights (Cleveland P. O.)—Village let contract paving Thornhurst Ave., to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $17,010; Warner Rd., to Enterprise Paving & Constr. Co., 8444 Bway., Cleveland, $9,748. Noted Aug. 25.

★Mich., Bad Axe—State Highway Dept. at office Bd. Rd. Comrs. Huron Co., let contract grading, draining and surfacing 0.994 mi. State Trunk Line Rd. 31-7, to Huron Co. Rd. Comn., Bad Axe, $32,668. Noted Aug. 18.

★Mich., Baldwin—State Highway Dept. at office Bd. Rd. Comrs. Lake Co. let contract grading, draining and surfacing 5.063 mi. State Trunk, Line Rd. 63-3, to Bowler & Sutton, Clare, $29,339. Noted Aug. 11.

Mich., Centerville—State Highway Dept., at office Bd. Rd. Comrs. St. Joseph Co., let contract grading, draining and surfacing 1.031 mi. State Trunk Line Rd. 13-10, Sect. B, involving 5,035 cu. yd. excav., 11,951 sq.yd. concrete, to W. H. Frieduckt Co., Bronson, $32,005.

Mich., Detroit—City received bids surfacing (1) Palmer Ave. from St. Aubin to Russel Sts., (2) Superior St. from St. Aubin to Chene Sts., (3) Hale St. from St. Aubin to Jos. Campau Sts., (4) 12th St. from Davison to Fenkell Sts., from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $9,150, (2) $5,124, (3) $9,150, (4) $22,440; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $9,300, (2) $5,208, (3) $9,300, (4) $21,960.

★Mich., Eagle River—State Highway Dept. at office Bd. Rd. Comrs. Keeweenaw Co., let contract grading, draining and surfacing 4.635 mi. State Trunk Line Rd. 15-8, to Keweenaw Co. Rd. Comrs., Eagle River. Work involves 42,991 cu.yd. rock excav., $2.75, 78.4 cu.yd. 1:2:4 concrete, $16, 198.6 cu.yd. 1:3:6 concrete, $14, 43,525 sq.yd. base course macadam, $0.70, total cost $60,857. Noted Aug. 11.

★Mich., Ionia—State Highway Dept. at office Bd. Rd. Comrs. Ionia Co., let contract grading, draining and surfacing 1.251 mi. State Trunk Line Rd. 66-3, to Marsman & Green, St. Joseph, $38,703. Noted Aug. 18.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Sringfield, received bids Aug. 23, paving (1) 2.99 mi. Route 2, Sect. 1, Jackson Co., (2) 5.99 mi. Route 2, Sect. 7, Perry-Washington Co., (3) 5.14 mi., Route 2, Sect. 8, Washington Co., (4) 11.13 mi., Route 2, Comb. A, Perry-Washington Co., (5) 4.18 mi., Route 3, Sect. 53, Greene Co., (6) 7.68 mi., Route 3, Sect. 6, Cass Co., (7) 6.71 mi., Route 4, Sect. 3, Will Co., (8) 7.86 mi., Route 4, Sect. 15, McLean Co., (9) 6.16 mi. Route 5, Sect. 17, Winnebago-Stephenson Co., (10) 4.49 mi., Route 5, Sect. 18, Stephenson Co., (11) 10.53 mi., Route 5, Comb. B, Winnebago-Stephenson Co., (12) 3.04 mi. Route 5, Sect. 3, Cook Co., (13) 3.96 mi., Route 5, Sect. 4, Du Page Co., (14) 5.16 mi., Route 5, Sect. 5, Du Page Co., (15) 12.16 mi., Route 5, Comb. C, Cook-Du Page Co., (16) 3.89 mi., Route 5,

Streets and Roads (Continued)

Sect. 6, Du Page Co., (17) 2.37 mi., Route 5, Comb. 6-A, Cook Co., (18) 2.61 mi., Route 5, Sect. 7, Cook Co., (19) 8.87 mi., Route 5, Comb. D, Du Page-Cook Co., (20) 21.03 mi. Route 5, Comb. E, Cook-Du Page Co., (21) 6.78 mi. Route 10, Sect. 10, Pratt-Macon Co., (22) 5.81 mi. Route 13, Sect. 1, Williamson Co., (23) 4.99 mi. Route 13, Sect. 5, Jackson-Williamson Co., (24) 10.8 mi., Route 13, Comb. F, Jackson-Williamson Co., (25) 3.64 mi., Route 15, Sect. 2, St. Clair Co., (26) 4.83 mi., Route 15, Sect. 3, St. Clair-Clinton Co., (27) 8.47 mi. Route 15, Comb. G, St. Clair-Clinton Co., (28) 2.16 mi. Route 15, Sect. 8, Washington Co., (29) 5.95 mi., Route 15, Sect. 9, Washington Co., (30) 4.86 mi. Route 15, Sect. 10, Washington Co., (31) 12.91 mi., Route 15, Sect. H, Washington Co., (32) 6.51 mi., Route 18, Sect. 11, Kane-Du Page Co., (33) 6.81 mi., Route 23, Sect. 1, La Salle Co., (34) 3.43 mi., Route 23, Sect. 28, De Kalb Co., (35) 3.89 mi. Routes 23 and 6, Comb. I, La Salle-De Kalb Co., (36) 0.46 mi. Route 6, Sect. 7-A, De Kalb Co., (37) 7.56 mi. Route 25, Sect. 6, Clay Co., (38) 4.36 mi. Route 31, Sect. 7, Brown Co., (39) 1.11 mi. Route 37, Sect. 5, Franklin Co., (40) 1.08 mi. Federal Aid Project 9, Sect. 27, Marshall Co.; grading (41) 1.52 mi. Route 18, Sect. 13-A, Kendall Co., (42) 3.17 mi. Route 18, Sect. 14-A, Kendall Co., (43) 4.69 mi. Route 18, Comb. J, Kendall Co., from

M. Hayes & Son, Janesville, Wis., (1) $88,337.

Madison Constr. Co., Edwardville, (1) $89,457.

Keokuk Quarry & Constr. Co., Keokuk, Ia., (2) $166,963, (3) $153,620, (5) $103,344, (9) $150,272, (10) $100,803, (22) $123,082, (23) $106,933, (25) $94,968, (26) $129,910, (33) $184,767, (38) $108,360.

H. H. Hall Constr. Co., Murphy Bldg., East St. Louis, (2) $169,977, (3) $158,610, (4) $320,000, (22) $154,952, (23) $134,564, (24) $285,000, (31) $410,000.

Hedges Constr. Co., 111 West Washington St., Chicago, (2) $176,280, (3) $159,349, (4) $306,215, (11) $254,727, (15) $312,239, (22) $148,942, (23) $130,095, (24) $256,139, (28) $68,413, (29) $183,301, (30) $148,749, (31) $365,726.

J. O. Heyworth, 606 South Michigan Ave., Chicago, (4) $286,763, (27) $224,366, (28) $72,228, (31) $351,384.

J. Kesl & Son, Edwardsville, (5) $91,773, (25) $90,826.

Edwardsville Constr. Co., Edwardsville, (5) $91,914.

Cameron, Joyce & Co., Keokuk, Ia., (6) $193,057, (27) $227,271, (38) $113,556, (43) $57,624.

W. F. Smith Co., Rensselaer, Ind., (6) $221,766.

C. E. Carsen Co., 155 North Clark St., Chicago, (6) $223,030.

H. K. Rhodes Co., Lincoln, (7) $151,704, (8) $149,649.

Powers-Thompson Constr. Co., Joliet, (7) $156,279, (15) $308,395, (19) $198,346, (20) $506,741, (32) $138,624.

W. A. Jaicks, Chicago, (7) $158,191, (32) $134,249, (34) $78,945, (36) $11,827.

F. Lorenz, Oak Glen, (8) $157,661.

I. D. Lane, Bloomington, (8) $160,504.

C. C. Vanderhoons & Son, Ripon, Wis., (9) $144,503, (10) $101,151, (11) $240,000.

Gund-Graham & Co., Crum & Forster Bldg., Freeport, (9) $162,117, (10) $113,982.

Hart & Page, 110 North Court St., Rockford, (11) $270,434, (35) $91,189, (36) $11,826.

J. Mackler & Co., Chicago Heights, (12) $67,054.

Commonwealth Impvt. Co., 179 West Washington St., (12) $68,516, (13) $101,989, (14) $117,261, (16) $89,244, (17) $52,972, (18) $67,087.

Northwest Constr. Co., Chicago, (12) $68,632.

C. C. Stewart & Co., Chicago, (13) $98,963, (14) $107,795, (16) $84,110.

Federal Paving Co., 133 West Washington St., Chicago, (13) $106,095, (14) 116,886, (16) $89,988, (17) $54,344, (18) $65,546, (20) $480,276.

Chicago Heights Coal Co., Chicago Heights, (15) $276,675, (19) $219,000.

C. E. Gertz & Son, Elgin, (17) $47,106, (18) $57,998.

Bates & Rogers, 37 West Van Buren St., Chicago, (19) $261,409.

R. F. Conway & Co., 133 West Washington St., Chicago, (20) $562,000.

King & Baker, Dudley, (21) $132,222.

C. A. Clarke Co., Clinton, Ind., (21) $134,000.

Bd. Supervrs., Macon Co., Decatur, (21) $142,426.

Wabash Constr. Co., Vincennes, Ind., (24) $294,000.

Frazier-Davis Constr. Co., Arcade Bldg., St. Louis, (25) $96,949, (26) $133,178, (27) $218,000.

W. C. Johnson, 510 South High St., Belleville, (26) $134,439, (28) $68,413, (29) $164,558, (30) $135,941.

Mautz & Oren, Effingham, (29) $168,078, (30) $136,654, (37) $189,459.

Illinois Hydraulic Constr. Co., Elgin, (32) $142,801, (34) $82,712, (35) $96,417.

E. Bens Co., Indianapolis, Ind., (33) $183,850.

W. C. Meneeley, 709 North Clay St., Frankfort, Ind., (33) $187,642.

Milburn Bros., Chicago, (34) $83,102, (35) $94,995, (36) $13,465.

Stressenreuter Bros., 3020 South Halstead St., Chicago, (37) $165,728.

F. B. Ries, Quincy, (38) $135,103.

Shadler Constr. Co., Kankakee, (39) $24,592.

Powell & Ganes Can. Products Co., Collinsville, (40) $32,340.

B. F. Harrison, Poor Farm Rd., Decatur, (41) $5,345, (42) $46,601.

Ame & Warfield, Lincoln, (41) $5,840, (42) $45,931, (43) $51,700.

Ollendorf Constr. Co., Palatine, (41) $7,272, (42) $49,678.

Burns & Olsen, St. Joseph, Mo., (43) $56,000. Noted Aug. 18.

★Ill., Galesburg—City let contract paving various streets, brick on concrete base, to Graham-King Constr. Co., 550 South Cedar St. About $81,000. Noted June 16.

★Ill., Joliet — City let contract paving streets, asphalt on concrete base, to J. C. McCarthy Co., Joliet. About $66,000. Noted June 9.

★Ill., Oak Park—City let contract paving various alleys, vitr. brick on concrete base, to R. R. Anderson & Co., 1833 Park Ave. About $30,000.

Wis., Chippewa Falls—City received bids Aug. 23, rein.-con. paving ½ mi. Main St. from Canal to Greenville Sts., from A. Larson & Co., 419½ South Barstow St., Eau Claire, at $33,313; Universal Eng. Co., Eau Claire, $33,870. Noted Apr. 14.

★Wis., Shawano—City let contract paving streets, concrete, to J. McCarthy Constr. Co., Kaukauma, $53,272. Noted Aug. 11.

★Ia., Burlington—City let contract paving Main St., to Pickens Constr. Co., Burlington. About $65,000. Noted June 23.

★Ia., Osceola—Clarke Co. let contract grading 12.063 mi., Primary Rd. Project 31, from here, northeast to Warren Co. line, involving 150,049 cu.yd. excav., to Peterson, Shirley & Gunther, 1102 Woodmen of the World Bldg., Omaha, Neb., at $0.22 per cu.yd.

★Minn., Brainerd—City let contract grading and paving Front St. from 4th St. S., to 8th St. S., to Riches & Son, 6226 Tower Ave., Superior, Wis., at $26,645 for concrete with crushed rock. Noted Aug. 25.

Minn., Faribault—Rice Co. let contract improving 10 mi. Job 2104, State Rd. 20, 24 ft. wide, to Petrie & Merrill, Anoka, about $52,000. Noted July 21.

★Minn., St. Paul—City let contract paving about 12,000 sq.yd., an extra width of 4 ft. (additional to 20 ft. wide paving already awarded) on 4.75 mi. Point Douglas Rd. from Burns Ave. to South city limits, to Hanlon & Okes, 338 Lumber Exch. Bldg., Minneapolis, $39,330. Noted Aug. 18.

★Kan., Ft. Scott—Bourbon Co. let contract grading and surfacing with bituminous macadam 7 mi. Federal Aid Project 34, Sect. "A," to J. T. Dalton & Son, Junction City. About $110,000.

Wyo., Kemmerer—City received bids grading, curbing and paving about 8 blocks, North and South Main Sts., Park Ave. and Pine St., warrenite-bitulithic, on 2 or 3 in. concrete base, from Warren Constr. Co., Journal Bldg., Portland, Ore., $70,194; McGuire Constr. Co., Idaho Falls, Idaho, $72,035.

Missouri—State Highway Dept., Bolivar, received bids building 4.94 mi. state rd. from Bolivar, eastward and westward, involving (1) 25,540 cu.yd. earth excav., (2) 3,241 cu.yd. rock excav., (3) 5,129 cu.yd. borrow, (4) 260.4 cu.yd. Class B concrete, (5) 74 cu.yd. Class C concrete, (6) 44.4 cu.yd. cement rubble masonry, from Miller Constr. Co., Springfield, (1) $0.35 per cu.yd., (2) $1.75, (3) $0.35, (4) $22, (5) $25, (6) $10, total cost $24,663; M. E. Gillioz, Monett, (1) $0.375, (2) $2, (3) $0.375, (4) $20, (5) $20, (6) $8, 25,704. Noted Aug. 4.

★Mo., Carthage—City let contract surfacing 4th and Garrison Aves., to H. Kost, Joplin. About $25,000. Noted Aug. 18.

★Mo., Weston—City let contract surfacing streets to H. Tidd, Hutchinson, Kan. About $150,000. Noted July 28.

★Okla., Pawhuska — City let contract grading and paving Dist. 10, to Stanton & Amerman, Wichita, Kan. About $163,000.

★Okla., Sand Springs—City let contract paving, curbing and guttering McKinley, Garfield, Main, 7th, Bway. and Cleveland Sts., in Dists. 3 and 4, to Green Constr. Co., Oklahoma City, $178,779. Noted June 30.

★Col., Denver—City let contract grading, curbing and draining 7 blocks Bway. Paving Dist. 5, 60 ft. wide to C. C. Madsen, Denver Athletic Club, $85,715.

★Wash., Tacoma—City let contract paving 6,400 ft. East 34th and McKinley Aves., 24 ft. wide, concrete, to J. Warter, Sr., Tacoma, $77,750. Noted Aug. 4.

★Cal., Los Angeles — City let contract paving Santa Monica Blvd. from La Brea to Fairfax Aves., to E. L. Garrettson, 1216 2d St., Santa Monica, $48,679. Noted Aug. 18.

★Ont., Niagara Falls—City let contract building 16,000 sq.yd. Willite asphalt pavement, to Johnston Bros., 43 Market St., Brantford, at $2.20 per sq.yd., total cost $35,200.

★B. C., Cranbrook—Dept. Pub. Wks., Victoria, will clear, grub and grade 4 mi. Moyie Rd., here. About $35,000. Work will be done by day labor. A. McKenzie, dist. engr.

Industrial Works

PROPOSED WORK

N. Y., Buffalo—Duffy Silk Co., 1260 Bway., having plans prepared by Esenwein & Johnson, archts., Ellicott Sq., for 3 story, 60 x 175 ft., silk mill. Cost to exceed $50,000.

N. Y., Buffalo—Danahy Packing Co., 25 Metcalfe St., had plans prepared by H. Brown, archt., 28 Glenwood Ave., for 4 story, 60 x 67 ft. cooler building, concrete, brick and steel, on Metcalfe St. About $45,000.

N. Y. Long Island City—R. Hellman, Inc. 501 Steinway Ave., Astoria, having preliminary plans prepared by J. K. Turton Co., Inc. archts. and engrs., 101 Park Ave., New York City, for 100 x 125 ft., brick, steel and concrete factory, rein.-con. flooring, concrete foundation, at 602 Jackson Ave., here. About $150,000.

N. Y., New York—Soan & Moeller, c/o Magnuson & Kleinert, archts. and engrs., 52 Vanderbilt Ave., soon receive bids building 2 story, 100 x 125 ft., brick, steel and concrete garage, rein.-con. flooring, concrete foundation, at 327 East 64th St. About $60,000.

Pa., Phila.—W. Steele & Sons, 17th and Arch Sts., soon receives bids building 3 story, concrete brick and steel factory, rein.-con. flooring, concrete foundation on Kensington Ave. and M St. for H. Bunton & Co., 213 Race St. About $80,000.

Pa., Wilkes Barre—M. F. Fadden & Sons, Inc., Wyoming Ave., receives bids about Oct. 8, building 2 story, 60 x 90 ft. ice cream plant, brick and steel, rein.-con. flooring, on Wyoming Ave. and along tracks of Lehigh Valley R.R. McCormick Co., Century Bldg., Pittsburgh, engrs. and archts.

Ill., Chicago—Cuneo-Henneberry Co., 445 West 22nd St., had plans prepared by A. S. Alschuler, archt., 28 East Jackson Blvd., for 6 story, 100 x 250 ft., brick, rein.-con. and terra cotta, printing plant, on 22nd St. and Cottage Grove Ave. About $500,000. J. F. Cuneo, pres.

Wis., Sauk City—Sauk City Canning Co. having plans prepared by J. Dresen, archt., Sauk City, for 2 story, brick cannery and 1 story main factory building, separate power house and warehouse. Cost between $75,000 and $80,000.

Mo., Clarence—A. Burnett, c/o Clarence Auto Co., having plans prepared by Burgher Bros., archts., Hannibal, Mo., for 1 story, 100 x 140 ft., brick and steel auto repair shop. About $45,000. Noted July 29.

Mo., St. Charles—City retained Benham & Mullergren, consult. engrs., Firestone Bldg., Kansas City, to prepare plans for municipal electric light plant and distribution system. About $200,00.

Utah, Stockmore—Great Basin Power Co., Walker Bank, Salt Lake City, having preliminary plans prepared by H. A. Strauss, engr., Walker Bank, Salt Lake City, for 5 to 10,000 k. w. hydro electric power plant.

Industrial Works (Continued)

BIDS DESIRED

N. J., Ocean City—Until Sept. 6, by Bd. Freeholders Cape May Co., Court House, Cape May, remodeling electrical plant, at 34th St. draw-bridge, here. M. L. Rice, Wildwood, Co. engr.; advertised in this issue.

Pa., Phila.—Until Sept. 5, by L. M. Davis, 1616 Chancelor St., building 2 and 3 story, 60 x 60 ft., concrete, brick and steel garage, concrete foundation, at 1616-1618 Chancelor St. About $75,000. R. Priest, 1627 Sansom St., engr.

Pa., Pittsburgh—Cunningham Sales Co. receiving bids building 2 story, 85 x 100 ft. concrete, brick and steel garage and sales, rein.-con. flooring, on Aspen and Liberty Aves. About $100,000. F. C. Fisher & Co., 419 Olivia Ave., archts.

Pa., Pittsburgh—North Pole Ice Co., Carson St., receiving revised bids building 6 story, 160 x 192 ft., cold storage plant, at 1218 West Carson St. Cost between $500,000 and $600,000. W. Griesser, 222 Meyron Ave., archt. Noted June 3.

Pa., Pittsburgh—A. J. Schmitz, 237 Collins Ave., receiving bids building 8 story, 60 x 110 ft. garage and warehouse, concrete, brick and steel, rein.-con. flooring, on Penn Ave. About $150.000. S. Waller, 154 Nassau St., New York City, archt.

Pa., Pittsburgh—Union Ice Co., North Side, is receiving bids building 2 story, 70 x 163 ft. concrete, brick and steel factory, rein.-con. flooring on Beaver Ave. Cost between $90,000 and $100,000. C. G. Gerber, Park Bldg., archt.

Pa., Scranton—Smith & Clark Co., 516 South Blakely Ave., receiving bids building 3 story, 60 x 100 ft., ice cream plant, brick and steel, rein.-con. flooring, concrete foundation, on Wyomig ad Poplar Sts. McCormick Co., Century Bldg., Pittsburgh, engrs.

Ill., Chicago—C. H. Eckstrom, archt., 5 North La Salle St., receiving bids building 8 story, 99 x 121 ft., rein.-con., top addition to present 4 story printing plant, at 500-10 North Dearborn St., for W. D. Boyce, 508 North Dearborn St. About $400,000.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., West Pownal—Feeble Minded Comn., Augusta, let contract building 1 story, 45 x 73 ft., steel, brick and concrete, rein.-con. flooring central heating plant, at State School, here, to H. P. Cummings Contg. Co., Fidelity Bldg., Portland. About $70,000. Noted July 28.

★N. H., Concord—Rumford Press let contract building 4 story, 81 x 180 ft., rein.-con. factory, on Ferry St., to Aberthaw Constr. Co., 27 School St., Boston. About $175,000.

★Conn., Suffield—K. Kulle, Suffield, let contract building 1 story, 100 x 210 ft., brick warehouse and plant, rein.-con. flooring, to Zent-Bartlett Co., 43 Ann St., Hartford. Noted Aug. 4.

★Mass., Shirly—State Industrial School let contract building 1 and 2 story, 35 x 140 ft., brick kitchen and laundry, here, to P. D. Armond & Son, Westboro. About $65,000. Noted July 28.

N. J., Secaucus—Bd. Freeholders Hudson Co. let contract building laundry at County Alms House, to H. G. Auf der Heide, 30 18th St., West New York, $45,892.

★Pa., Phila.—C. P. Cochrane & Co., Kensington Ave. and Butler St., let contract building 2 story, 27 x 42 x 47 x 52 ft. brick and steel factory addition, on Kensington Ave. and Butler St., to W. Steele & Sons, 17th and Arch Sts. About $75,000.

★Pa., Phila.—S. W. Evans Co., 4623 St. Paul St., let contract building additions to present factory, to Steele & Sons, 17 and Arch Sts. About $125,000.

★Pa., Phila.—Mayer Baking Co., 60th and Hazel Ave., let contract building 3 story, 125 x 130 ft., brick and steel bakery, rein.-con. flooring, concrete foundation, on Thomas St., to Wark Co., 231 South Broad St. About $140,000.

★Va., Richmond—E. K. Vieter, 1800 Simms Ave., let contract building 2 story, 34 x 82 x 87 ft. tobacco drying factory, rein.-con. at 1800 Simms Ave., to A. H. Collegan, 713 East Franklin St. About $40,000.

★O., Cleveland—Cleveland Society for Blind, 2275 East 55th St., let contract building 2 story, 40 x 80 ft. broom factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, to J. Gill & Sons, Citizens Bldg. About $40,000.

O., Columbus—Columbia Forge & Iron Co., West 1st Ave., received bids Aug. 17, building 1 story, 70 x 200 and 1 story, 110 x 120 ft., factory, saw tooth construction, from State Constr. Co., Broad and 5th Sts., at $50,000; D. L. McGrath & Sons, New First Natl. Bank Bldg., $52,000.

★O., Dayton—Cream Fried Cake Co., Columbus, let contract building 1 story, 74 x 100 ft., rein-con. bakery, rein.-con. flooring, rein.-con. foundation, on Troy and Chapel Sts., here, to Central Eng. Co., Troy St. About $45,000.

★Mich., Detroit—G. C. Wetherbee, 4251 Cass Ave., let contract building 2 story, 50 x 150 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation on 3rd Ave., to G. D. Nutt, 632 Farewell Bldg. About $90,000.

★Ill., Chicago—M. Born & Co., 540 South Wells St., let contract building 12 story, 45 x 120 ft., clothing factory, steel and brick, at 700-710 West Harrison St., to R. F. Wilson & Co., 1851 Elston Ave. About $750,000. Noted July 14.

★Ill., Chicago—Cuneo-Henneberry Co., 455 East 22nd. St., let contract building 6 story, 100 x 221 ft., rein.-con., brick and terra cotta printing plant, at 2242-54 Cottage Grove Ave., to McLennan Constr. Co., 3105 South Calumet Ave. About $750.000.

★Ill., Chicago—Yellow Cab Co., 57 East 21st St., let following contracts, building 1 story, 140 x 250 ft. garage, on Flournoy and Lavergne Aves., masonry, W. T. Reichard, 813 South Kedzie Ave.; carpentry, F. E. Bear, 19 South La Salle St.; heating, H. B. Reiger, 128 North La Salle St.; plumbing, J. D. Martin, 3420 South Wells St.; electric work, McKillip Electric Co., 124 North Keeler Ave. Total cost $85,000. Noted Aug. 18.

★Wis., Wilwaukee—Jessen Auto Equipment Co., 415 Jackson St., let contract building 2 story, 63 x 63 ft., brick and concrete garage, rein.-con. flooring, plain foundation, on Martin St., to S. Tallmadge, 848 Jackson St. About $40,000. Noted July 21.

★Wis., Tomahawk—Tomahawk Steel & Iron Co., will build 1 story, 100 x 180 ft. structural steel plant, brick, steel and tile. Work will be done by day labor. L. a De Guere, Wisconsin Rapids, engr.

★Kan., Topeka—Topeka Steam Boiler Wks. let contract building 4 story, 50 x 85 ft., brick and steel warehouse, on 2nd and Jefferson Sts., to F. M. Spencer & Son, 215 Mulvance Bldg. About $150,000.

★Neb., Omaha—J. K. Hyde, 1103 Westwood Ave., Columbus, O., let contract building 1 story, 100 x 120 ft., factory and 25 x 40 ft., boiler house, brick and steel, on 36th and I Sts., to J. W. Wakefield & Co., Brandeis Bldg. About $60,000.

★S. D. Sioux Falls—J. Morrell Co. let contract building 3 story, 100 x 140 ft., rein.-con., brick and steel addition to packing plant, to Sioux Falls Constr. Co., Boyce-Greeley Bldg. About $150,000.

★Mo., St. Louis—Midwest Piping Co., c/o A. G. Stoughton, pres., 1452 South 2nd St., let contract building 1 story, 40 x 151 ft., brick and steel factory, at 1452 South 2nd St., to H. O. Hirsch & Co., Wainwright Bldg. About $50,000.

Tex., Amarillo—Chicago, Rock Island and Pacific R.R., 139 Van Buren St., Chicago, Ill., let contract building 92 ft. brick and steel roundhouse, here, to J. E. Nelson, 3240 South Michigan St., Chicago, Ill. About $50,000.

★Tex., Dallas—E. G. Knight, 3617 Cedar Springs St., let contract building 5 story, 116 x 153 ft., concrete and steel garage, on Masten and Pacific Sts., to Hughes-O'Rourke Constr. Co., Praetorian Bldg., $141,789. Incorrectly noted July 28.

★Okla., Muskegee—J. H. Schmidt let contract building 1 story battery factory, brick and steel, to Dickman & Nelson, Muskogee. About $55,000.

★Ont., Ottawa—Ottawa Dairy Co., Sommerset St., let contract building 2 story, rein.-con., brick and steel addition to dairy, concrete flooring and foundation, on Cooper St., to A. Garvock, Regent Theatre. About $75,000.

Buildings

PROPOSED WORK

Mass., Hull—Fire and Police Station—Town Bldg. Comn. rejected bids received Aug. 22 building 3 story 52 x 120 ft. and 1 story, 60 x 90 ft., brick and stone, on Atlantic Ave. About $175,000. Plans will be revised and bids readvertised. Noted Aug. 18.

Mass., Quincy (Boston P. O.)—High School—Schoolhouse Comn. having plans prepared by Cram & Ferguson, archts., 15 Beacon St., Boston building 3 story, brick on Coddington St., Woodward Ave. and Huntly Rd., here. About $700,000. Noted March 24.

Conn., New Haven—Store—E. Malley Co., Chapel St., having plans prepared by Starrett & Van Vleck, engrs. and archts., 8 West 40th St., New York City, building brick, steel and stone addition, concrete foundation, on Chapel St. About $450,000.

N. Y., Brooklyn—School—Dept. Educ., 500 Park Ave., New York, had plans prepared by C. B. J. Snyder, archt. and engr., 28th floor, Municipal Bldg., New York, for P. S. 187, brick, steel and stone, concrete foundation, on 65th St. and 12th Ave. About $1,000,000. Noted May 5.

N. Y., Cortland—Institution—Delano & Aldrich and C. H. Higgins, archts., 19 West 44th St., New York City, opens bids about Sept. 15, for group of buildings, brick and stone, brick foundation here, near Croton-on-Hudson, for Valeria Home, 7 East 42d St., New York City. About $1,000,000. Noted Jan. 6.

N. Y., Maspeth—School—Bd. Educ., 500 Park Ave., New York City, having plans prepared by C. B. J. Snyder, archt. and engr., 28th Floor, Municipal Bldg., New York City, for 3 story, brick, steel and stone addition to P. S. 72. About $250,000. Noted May 5.

N. Y., New York—Apartment—V. Gerabone, c/o G. F. Pelham, archt. and engr., 200 West 72nd St., soon receives bids building 5 story, 100 x 100 ft., brick, steel and stone, concrete foundation, at 316 West 89th St. About $250,000.

N. Y., New York—Bank and Office—Sun Printing & Publishing Co. had plans prepared by McKim, Mead & White, archts., 101 Park Ave., for 26 story, 56 x 57 ft., brick, steel and stone, concrete foundation, on Nassau and Franklin Sts. About $600,000.

N. Y., New York—School—Bd. Educ., 500 Park Ave., had plans prepared by C. B. J. Snyder, archt. and engr., 28th floor, Municipal Bldg., for 2 story, brick, steel and stone top addition to P. S. 41, on Olinville Ave. About $350,000.

N. Y., New York—School—Dept. of Educ., 500 Park Ave., having plans prepared by C. B. J. Snyder, archt. and engr., 28th floor, Municipal Bldg., for P. S. 80, brick, steel and stone, concrete foundation, on 121st St. and 1st Ave. About $750,000.

N. Y., New York—School—Bd. Educ., 500 Park Ave., soon receives bids building P. S. 58, 4 story, 90 x 105 ft., brick, steel and stone, concrete foundation, on 176th St. and Washington Ave. About $500,000. C. B. J. Snyder, 28th floor, Municipal Bldg., archt. and engr.

Ill., Chicago—Apartment—A. L. Himelblau, archt., 179 West Washington St., prepared plans and soon receives bids building 3 story, 100 x 100 ft. brick and stone, at 4181 Clarendon Ave., for Weller & Rubenstein, 1108 South Central Park Ave. About $150,000.

Ill., Chicago—Church—Worthman & Steinback, archts., 155 North Clark St., preparing plans and soon receive bids building 1 story, 110 x 125 ft., brick and stone, on Harvard Ave. and 64th St., for English Evangelical Church of the Redeemer, c/o architect. About $150,000.

Ill., Chicago—Home—Cook Co. Comrs. had plans prepared by E. E. Hall, archt., 123 West Madison St., for 3 story 50 x 135 ft., brick, rein.-con. and stone, on Ogden and Roosevelt Aves. About $1,000,000. H. Zender, 519 County Bldg., Comr. Pub. Wks.

N. J., Paterson—School—Bd. Educ. soon lets contract building P. S. 2, brick, steel and stone, concrete foundation, on Mill and Passaic Sts. About $400,000. Lee & Hewitt, 25 West B'way., New York City, archts. and engrs.

N. J., Upper Montclair—(Montclair, P. O.)—Theatre—J. H. Phillips, archt. and engr., 681 5th Ave., New York City, soon lets contract building 2 story, 65 x 150 ft., brick, steel and stone, concrete foundation, on Belleview Ave., here, for Belleview Theatre Corp., c/o architect. About $200,000.

Pa., Barnesboro—High School—School Bd. plans to build Northwestern Cambria Co. High School, 3 story. About $200,000. Cost to be borne by 5 school dists. Address M. S. Bentz, Ebensburg, supt.

Buildings (Continued)

Pa., Philadelphia—Apartment—A. Sonenfeld, 707 Walnut St., having plans prepared by F. E. Hahn, archt., 1112 Chestnut St., for 4 story, 105 x 250 ft., brick and stone, on 47th and Walnut Sts. About $160,000.

Ill., Chicago—Home—C. D. Faulkner, archt., 140 South Dearborn St., prepared plans and soon receives bids building 3 story, 90 x 96 ft., brick, fireproof construction, on 113th St. and South Western Ave., for Oak Haven, Old People's Home, c/o R. A. White, pres., 140 South Dearborn St. About $200,000.

Ill., Chicago—Home and Nursery—Dubin & Eisenberg, archts., 14 West Washington St., soon receives bids building superstructure of 3 story, 96 x 278 ft., rein.-con., brick and stone, on California Ave. and Hirsh Blvd., for Daughters of Zion Infants' Home and Day Nursery, 1441 Wicker Park Ave. About $350,000. Noted June 23.

Ill., Chicago—Office—Holabird & Roche, archts., 104 South Michigan Ave., prepared plans and soon receives bids building 12 story, 120 x 192 ft., white limestone and brick, at 1206-24 North Michigan Ave., for Illinois Life Insurance Co., Otis Bldg. About $500,000.

Ill., Chicago—Synagogue—Congregation Anshe Wilna, c/o H. Berkson, pres., 3708 West Roosevelt Rd., plans to build brick and stone, on Congress St. and South Springfield Ave. About $250,000. Architect not selected.

Ill., Elgin—Temple—Elgin and Monitor Masonic Lodge, c/o E. H. Abbor, Home Bk. Bldg., plans to build 2 story, brick, rein.-con. or steel. About $150,000. Architect not selected.

Ill., Peoria—Hotel and Stores—J. W. Parker, 519 North Monroe St., plans to build 6 story, rein.-con. and brick. About $300,000. Architect not selected.

Ill., Peoria—School and Hall—St. Cecelia's Parish, plans to build 2 story, rein.-con., brick and stone. About $150,000. J. G. Cosgrove, pastor. Architect not selected.

Ill., Taylorville—Temple—Mound Lodge 122, c/o E. Denning, secy., having plans prepared by Liese & Ludwick, archts., Temple Bldg., Danville, for 2 story, rein.-con. and brick. About $150,000.

Ill., Urbana—Hospital—St. Mary's Mercy Hospital, c/o R. Flynn, pastor, 612 East Park Ave., Champaign, having plans prepared by G. Ramey, archt., Roberson Bldg., Champaign, for 3 story, 55 x 110 ft., brick, rein.-con., and steel. About $175,000. Noted Aug. 25.

Wis., Cudahy—High and Grade Schools—School Bd. plans to build 3 story high and 2 story grade school, both rein.-con., and brick, rein.-con. flooring, plain foundation. About $250,000 and $150,000 respectively. F. H. Williamson, pres. Architect not selected.

Wis., East Troy—Novitiate, Church, etc.—Fathers of Divine Word, c/o A. Exkert, pastor, plans to build 2 story, rein.-con., brick and tile, brick foundation. About $150,000. Architect not selected.

Wis., Hillsboro — Church — St. Aloysius Catholic Congregation, c/o Ferdlich, pastor, receives bids about Sept. 10 building 1 story, 86 x 147 ft., rein.-con., steel, brick and tile, brick foundation. About $150,000. J. Paulu, North Francis St., Sta. D, Milwaukee, archt.

Wis., Institute (Sturgeon Bay P. O.)—High and Grade School — Consolidated School Dist. having plans prepared by Juul, Smith & Rynolds, archts., Dempsey Bldg., Manitowoc, for 3 story, 95 x 160 ft., brick and concrete, rein.-con. flooring, plain foundation; also power house. About $150,000. Noted Aug. 11.

Wis., Marathon—School and Dormitory—Capuchin Order, c/o B. Mueller, pastor, 440 Mt. Elliott Ave., Detroit, Mich., having plans prepared by H. T. Liebert, archt. and engr., 47 Mack Blk., Milwaukee, for 2 story, 80 x 162 ft., brick, concrete and structural steel, rein.-con. flooring, plain and stone foundation, at St. Joseph's Convent here. About $150,000.

Wis., Milwaukee — Seminary — Wisconsin Lutheran Synod, 814 Vliet St., voted $500,000 bonds to build seminary. J. Brenner, reverend. Architect not selected.

Wis., Wausau—Hospital—D. L. Plumer Hospital, c/o A. Wodson, McIndoe St., having preliminary plans prepared by Berlin, Swern & Randall, archts., 19 South La Salle St., Chicago, for (1st unit) brick and concrete, rein.-con. flooring, plain foundation. About $200,000. Noted Aug. 4.

Ia., Ames—Library, etc.—State Bd. Educ., Capitol, Des Moines, plans to build library, stone, about $475,000; physics, rein.-con., brick, etc., about $225,000; addition to agricultural engineering building, rein.-con., brick, etc., about $150,000; and several barns, at Iowa State College, here. Total cost about $1,000,000. R. A. Pearson, pres.

Ia., Cedar Rapids — Business—Harper-McIntyre Co., Ottumwa, having plans prepared by Groft & Boerner, archts., Palace Bldg., Minneapolis, Minn., for 3 story, 100 x 140 ft., rein.-con. and brick. About $165,000. W. G. Gray, mgr.

Ia., Chariton—High School—Bd. Educ. plans to build 2 story, brick, stone, rein.-con. or steel. About $185,000. P. Perry, secy. Architect not selected.

Ia., Crawfordville—School—Bd. Educ. plans to build 2 story school. About $150,000. Architect not selected. Bonds recently voted for project.

Ia., Dubuque—Bank and Office—Bankers' Arch. & Eng. Co., archts., 122 South Michigan Blvd., Chicago, preparing plans and soon receive bids for 1 and 2 story, 75 x 100 ft., brick and rein.-con., on 14th and Clay Sts., for N. C. Gindorff, 1306 Clay St. About $200,000. Noted Aug. 11.

Minn., Minneapolis—Stores and Offices—F. W. Greaves, 10 North 5th St., having plans prepared by Beuchner & Orth, archts., 500 Shubert Bldg., St. Paul, for 2 story, 100 x 157 ft., rein.-con., brick and tile, on 4th St. and Hennepin Ave. About $150,000.

S. D., Sioux Falls—College—Diocesan College having plans prepared by E. Lundie, archt., 532 Endicott Bldg., St. Paul, for 3 story, brick and stone. About $175,000. J. O'Gorman, bishop.

Mo., Monett—See "Miscellaneous."

Mo., Rockville—Keystone Products Co. plans to build 2 story, brick and steel factory. About $55,000. L. L. Hall, mgr. Architect not selected.

Mo., St. Joseph — College — Christian Brothers College, c/o Brother Henry, plans to build 3 story, brick, rein.con. and steel, on 12th and Henry Sts. About $180,000. Architect not selected.

Tex., San Antonio — Lodge — Masonic Lodge receives bids about Dec. 1, building 180 x 225 ft., rein.-con. and steel. Cost between $750,000 and $1,000,000. H. M. Greene Co., North Texas Bldg., Dallas, engrs.

Utah, Salt Lake City—Depot—Bamberger & Dien Electric Lines, having plans prepared by Young & Hansen, archts., McCormick Bldg., for interurban depot on South Temple St. About $200,000.

Ont., Windsor—School—Joint Bd. Educ. of Windsor and Walkerville, having plans prepared by D. J. Cameron, archt., Bartlett Bldg., for 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $600,000.

BIDS DESIRED

N. Y., Brooklyn—Bath—Until Sept. 7, by E. Riegelmann, boro pres. Boro Hall, constructing public bath at southeast corner of Metropolitan and Bedford Aves.

Pa., Chester—Hospital—Until Sept. 10, by F. F. Durang, archt., 1220 Locust St., Phila., building 4 story, 108 x 112 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 7th and Butler Sts., for St. James Hospital. About $250,000. Noted Aug. 11.

Pa., McKeesport — Dormitory, Nurses' Home, etc.—McKeesport Hospital receiving bids building 3 and 4 story, 37 x 168 ft. dormitory, 43 x 54 ft. nurses' home and 46 x 52 ft. power house, also garage, concrete, brick and steel, rein.-con. flooring, on 5th Ave. S. F. Heckert, Bessemer Bldg., Pittsburgh, archt.

N. C., Raleigh—Agricultural—Until Sept. 7, by W. C. Riddick, pres. State College of Agriculture & Eng. building 3 story, 61 x 184 ft., rein.-con. and brick, on campus here. About $200,000. Nelson & Copper, Raleigh, archts.

O., Akron—Auditorium and Gymnasium—Until Sept. 9, by Bd. Educ. building 2 story, 70 x 166 ft. and 70 x 120 ft., brick and steel, rein.-con. flooring on Dayton St. About $300,000. M. M. Konarski, High School, engr.

O., Warrensville—School—Until Sept. 22, by Bd. Educ. building 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and concrete foundation, on Center Rd. About $150,000. W. H. Nicklas, 1908 Euclid Ave., Cleveland, archt. Noted Aug. 11.

Mich., Detroit—Police Station and Armory—Until Sept. 8 (change of date), by J. Inches, comr. Police Dept., building 9 story, 117 x 172 ft. station and 3 story, 99 x 168 ft. armory, rein.-con., brick, steel and stone, on St. Antoine St. A. Kahn, 1000, Marquette Bldg., archt. Noted Aug. 18.

Mich., Detroit—School—Until Sept. 7, by Bd. Educ. building 2 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Palmetto and Van Dyke Aves. About $150,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Ill., Bloomington—College—Until Sept. 6, by A. L. Pillsbury, archt., Bloomington, constructing library, gymnasium, auditorium and dormitory and school buildings, for Illinois Wesleyan College, c/o T. Kemp, pres. About $700,000. Noted Aug. 11.

Ill., Chicago—Hotel—Minchin & Spitz, archts., 19 West Jackson Blvd., receiving bids building 3 story, 100 x 115 ft., brick, concrete and terra cotto, on Stony Island Ave., and 67th Pl., for A. Goldberg, c/o architect. About $200,000.

Ill.,, Chicago—Mercantile—P. Gerhardt, archt., 64 West Randolph St., receiving bids building 7 story, 60 x 100 ft., rein.-con. and brick, at 359-61 Ontario St. About $300,000. Owner's name withheld.

Ill., Danville—Armory—Until Sept. 10, by E. D. Martin, archt., 304 South Wabash Ave., Chicago, building 2 story, 160 x 168 ft., rein.-con. and brick, for State, c/o the architect. About $200,000.

Ill., Peoria — Apartment — Until Sept. 6, by Hewitt & Emerson, archts., Peoria Life Bldg., constructing 3 story, 65 x 91 ft., brick, rein.-con. and stone, for J. Szold & Associates, c/o the architect. About $150,000.

Ill., Rockford—Theatre and Apartment—Until Sept. 15, by C. E. Wolfley, archt., Stewart Bldg., constructing 3 story, 85 x 150 ft., brick, stone and steel. About $150,000. Owner's name withheld. Noted June 30.

Ill., Tuscola—High School—Until Sept. 10, by Bd. Educ., c/o G. Fuller, secy., and Liese & Ludwick, archts., Temple Bldg., Danville, for 2 story, 70 x 225 ft., brick, rein.-con. and steel. About $225,000. Noted July 28.

Wis., Blue River—Community—City, c/o T. Taylor, clk., receiving bids building 1 story, 50 x 110 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on Main St. About $150,000. L. E. Wannemaker, Boscobel, archt.

Wis., Stevens Point—Hotel—Until Sept. 12, by Clas, Shepherd & Clas, archts., 445 Milwaukee St., Milwaukee, building 5 story, 100 x 110 ft., rein.-con. and brick, rein.-con. flooring, plain foundation, for Stevens Point Hotel Co. About $235,000. Noted Jan. 27.

Ia., Des Moines—High School—Until Sept. 7, by Bd. Educ., c/o G. L. Garton, secy., building Lincoln School, 2 story, 240 x 360 ft., rein.-con., brick and stone, South West 9th & Loomis Sts. About $625,000. Proudfoot, Bird & Rawson, Hubbell Bldg., archts.

Ia., Fairfield—Church—Until Sept. 15, by Methodist Church Congregation, c/o C. L. Tennant and G. A. Carpenter, archt., Liggett Bldg., for 3 story, 66 x 132 ft., brick, steel and concrete. About $150,000. Noted Aug. 18.

Wyo., Cheyenne—High School—Until Sept. 26, by City Trustees, in office of W. Dubois, archt., Cheyenne, building 3 story, 100 x 250 ft., school, 28th and Evans Sts. About $365,000.

Tex., Tyler—Hotel—Until Sept. 15, by E. P. McKenna, chn. Bldg. Comn., building 5 story, 100 x 125 ft., rein.-con. About $200,000. C. D. Hill & Co., Sumpter Bldg., Dallas, archts. Noted May 5.

Okla., El Reno—School—Until Sept. 10, by Layton, Smith & Forsyth, archts., 701 Majestic Bldg., Oklahoma City, for 3 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, for Bd. Educ. About $214,000. Noted Aug. 4.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Boston—School—School Comn. let contract building 2 story, 79 x 112 ft., brick and stone, on Walnut Ave., to J. Bowen Co., 183 Dudley St. $171,500. Noted Aug. 18.

★Mass., Gardner—School—Town School Comn. let contract building 2 story, 100 x 120 ft. brick and steel, on Prospect St., to Churchill Co., 143 Harrison Ave., Boston. About $150,000. Noted Aug. 4.

★Conn., Stamford—Theatre—Wurster & Gordon, 243 West End Ave., New York City, let contract building 3 story, brick, concrete and steel, rein.-con. flooring, on Ripporoom Sq., to Jordin Co., Inc., 507 5th Ave., New York City. About $450,000. Noted Aug. 11.

Buildings **(Continued)**

★**Conn., Thomaston**—High School—School Bd. let contract building 2 story, 80 x 140 ft., brick, concrete and steel, on Main St., to G. S. Chatfield Co., 138 Division St., Waterbury. About $200,000.

★**Conn., Waterbury**—Bank—Leavenworth Co., Leavenworth St., let contract building 2 story, 90 x 105 ft., brick and limestone, rein.-con. flooring, on Leavenworth St. and Kendrick Ave., to Tracy Bros. Co., 52 Benedict St. About $300,000.

★**N. Y., Brooklyn** — Apartment — Dyker Constr. Co., c/o Shampan & Shampan, archts., 50 Court St., will build 4 story, 100 x 100 ft., brick, steel and stone, on 19th Ave. and 81st St. About $175,000. Work will be done by day labor.

★**N. Y., Brooklyn**—Apartments—J. Friedland, c/o S. Millman, archt. and engr., 26 Court St., will build two 4 story, brick, steel and stone, concrete foundations, on Parkside Ave. Total cost $300,000. Work will be done by day labor.

★**N. Y., Brooklyn** — Apartment—Globe Constr. Co., 22 Bay 35th St., will build 4 story, 100 x 100 ft., brick, steel and stone, concrete foundation, on 22nd Ave. and 79th St. About $170,000. Work will be done by day labor. McCarthy & Kelley, 16 Court St., archts. and engrs.

★**N. Y., Brooklyn** — Apartments — W. Small, 215 Montague St., will build 4 brick, steel and stone, concrete foundations. Total cost $800,000. Work will be done by day labor. McCarthy & Kelley, 16 Court St., archts. and engrs.

★**N. Y., Buffalo** — Schools — Bd. Educ., Telephone Bldg., let contracts building (1) elementary school 1, on Porter Ave. and Niagara St., (2) addition to elementary school 60, on Ontario and Saratoga Sts., (3) primary school 21, on Amherst and Parkdale Aves., (4) addition to elementary school 21, on Hertel and Camden Aves., (5) elementary school 9, on Poplar and Doat Sts., (a) general, (b) plumbing, (c) heating and ventilating, (d) electrical work, to Metzger Constr. Co., 676 Genesee St., (1a) $357,080, (3a) $48,017; Power Efficiency Corp., White Bldg., (1b) $19,900, (1c) $77,886, (2b) $18,260, (2c) $93,200, (3c) $16,834, (4b) $10,272, (4c) $59,280, (5b) $20,120, (5c) $77,086; J. Wilson & Sons, 282 Grant St., (3b) $3,950; Sanborn Electric Co., 309 North Illinois St., Indianapolis, Ind., (1d) $10,600, (2d) $16,600, (4d) $6,900, (5d) $10,200; J. W. Cowper Co., Fidelity Bldg., (2a) $342,779; McCarthy Bros. & Ford, 75 West Mohawk St., (3d) $3,810, C. H. Everitt, 295 Auburn Ave., (4a) $191,500, (5a) $368,292. Noted July 7.

★**N. Y., Cedarhurst**—Apartment—Cedarhurst Constr. Co., c/o Reilly & Hall, archts. and engrs., 405 Lexington Ave., New York City, will build 5 story, 100 x 150 ft., brick, steel and stone, concrete foundation, here. About $200,000. Work will be done by day labor.

★**N. Y., New York**—Theatre—S. B. Steinmetz, 449 East 149th St., will build 2 story, 100 x 200 ft., brick, steel and stone, concrete foundation, on Webster Ave. and 169th St., Bronx. About $250,000. Work will be done by day labor.

N. Y., Syracuse—School—Bd. Contract & Supply opened bids Aug. 22, building Franklin School, on North Alvord St., (1) construction, (2) heating and ventilating, (3) plumbing, (4) electrical wiring, from Shane Constr. Co., Herald Bldg., (1) $387,319; Jenks & Venton Constr. Co., S. A. & K. Bldg., (1) $398,105; H. J. Conrath Co., Erie, Pa., (1) $400,000; Ryan Plumbing & Heating Co., 160 Court St., Watertown, (2) $63,280; W. B. Goldie, 274 James St., (2) $69,381, (3) $26,390; E. Joy & Co., 133 Market St., (2) $68,500, (4) $17,997; Pierce & Shane, Syracuse, (3) $29,700; J. R. Walsh, 319 Montgomery St., (3) $28,486; R. E. Handlin, 212 Montgomery St., (4) $16,100; Industrial Power Corp., Buffalo, (4) $19,919.

★**Pa., Elizabethtown**—Hospital Administration—A. F. of M., c/o A. M. Beitler, Masonic Temple, Phila., let contract building 3 story, 42 x 76 ft., 36 x 110 ft. and 14 x 50 ft. rein.-con., brick and steel, rein.-con. flooring, rock foundation, here, to Hughes-Folkrod Co., Commonwealth Bldg., Phila. About $180,000.

★**Pa., Uniontown**—Hospital—Uniontown Hospital let contract building 3 story, 38 x 168 ft. and 36 x 38 ft., brick and steel, rein.-con. flooring, to W. Sutherland Constr. Co., Erie. About $160,000. Noted July 14.

★**Pa., Washington**—Hotel and Theatre—George Washington Hotel, Inc., let contract building 10 story, 162 x 226 ft., concrete, brick and steel, rein.-con. flooring, on Main and Cherry Sts., to J. W. Cowper Co., 30th and Liberty Sts., Pittsburgh. Noted Aug. 4.

Engineers, Contractors and Material and Plant Producers:

What else do you want?
What else would you like us to do for you?

Each week in these pages you find our best labor and thought—Ceaseless planning, direction, an adequate office force, 100 intelligent, conscientious correspondents; open minds, new ideas, improvements, balance, driving force, an incoming stream of construction reports.

It's all done in your interests;
What else do you want us to do?

Following these pages week by week are you annoyed by some sin of commission or omission that you wish we would rectify? Tell us about it, by all means, and at once; "we would rather be right than be president," and to be right means to be of the utmost service to the readers of *Engineering News-Record*.

Do you feel that we are neglecting your section of the country? That can easily be remedied; turn to our "Searchlight Section," and you will see an advertisement for Construction News Correspondents in a number of cities. We want to be represented in your section.

If you don't knock, boost, criticize, suggest, how are we to serve each other—we, by giving you what you want, and you, by wanting exactly what we give?

Write just as long letters as you please to

Engineering News-Record
Tenth Ave. at 36th Street, New York

★**O., Cleveland**—School—Bd. Educ. let contract for masonry and carpentry work on 2 story, concrete, brick and steel addition, on East 126th St. and Signet Ave., to Tanbusch Parker Constr. Co., Union Bldg., $94,487. Total cost $200,000.

Mich., Detroit—School—Bd. Educ. received bids building 3 story, 82 x 246 ft. and 113 x 130 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation on Brooklyn Ave., from O. Misch Co., 36 State St., $380,379; M. A. Mahoney, 400 Penobscot Bldg., $398,700; H. G. Christman Co., 315 Stevens Bldg., $408,268. Noted July 28.

★**Mich., Ironwood**—Municipal—City let contract building 2 story, 137 x 161 ft., rein.-con., brick and tile, rein.-con. flooring, concrete foundation, to Albinson Constr. Co., 300 5th Ave., S., Minneapolis, $263,230.

★**Mich., Saginaw** — Hospital — Saginaw General Hospital Assn., Bearinger Bldg., let contract building 4 and 5 story, 50 x 90 ft., rein.-con. and brick, rein.-con. flooring, to O. W. Jankins Constr. Co., 223 South Washington St. About $600,000.

★**Ill., Chicago**—Apartments—Plotke & Grosby, 2532 North Clark St., let contracts building two 3 story, 109 x 143 ft., brick and stone, one on Brompton and Pine Grove Aves., and other on Cornelia and Pine Grove Aves., to Barrett Constr. Co., 77 East Washington St. About $300,000 each.

★**Minn., Bemidji** — High School — Bd. Educ. let contract building 2 story, 148 x 230 ft., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, on 1st and Minnesota Aves., to E. Jackson, Bemidji, $240,200. Noted July 21.

★**Mo., St. Louis**—Stores—F. L. Cornwall and S. Hamburg, La Salle Bldg., will build 2 story, 75 x 400 ft., rein.-con. and brick, on Delmar Blvd. and Clara Ave. About $180,000. Work will be done by day labor. Noted Aug. 18.

★**Okla., Norman**—Ward and Dining Room—State Bd. Pub. Affairs, c/o H. V. Bird, Oklahoma City, let contract building 1 story, 109 x 166 ft. ward and 69 x 100 ft. dining room, rein.-con. brick and stone, to Genl. Constr. Co., **Muskogee.** About $150,000.

Buildings (Continued)

★Okla., Vinita—Hospital—State Bd. Pub. Affairs, c/o H. V. Bird, secy., Oklahoma, let contract building 2 story, 120 x 200 ft., rein.-con., brick and stone, to Manhattan Constr. Co., 3d and Fondulac Sts., Muskogee. About $150,000.

★Ont., Hamilton—School—Bd. Educ. let general contract building 3 story, 20 room, rein.-con., brick and steel, concrete foundation, on Lottridge St., to W. H. Cooper, Clyde Bldg., plumbing work, to A. Clark, 7 Main St. N., etc. Total cost about $300,000. Noted Aug. 4.

Federal Government Work

PROPOSED WORK

D. C., Washington — Heating System — Spec. 4510—Bureau Yards & Docks, Navy Dept., plans alterations and additions, in Naval Hospital.

Va., Norfolk — Heating System, etc. — Spec. 4512—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to alter and build addition to underground heating and drainage systems for Electrical Distributing System, here.

Va., Quantico — Water Supply Main — Spec. 4513—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to extend c.i. water supply main, here.

Tex., Port Arthur—Operating Building—Spec. 4511—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to construct, here.

BIDS DESIRED

Pa., Phila. — Hydraulic Dredge — Until Sept. 26, by U. S. Engineer, 815 Witherspoon Bldg., for hire of pipe-line hydraulic dredge and attendant plant, for use on Delaware River; advertised in this issue.

Va., Yorktown—Power Plant Equipment—Spec. 4508—Until Sept. 14, by Bureau Yards and Docks, Navy Dept., Wash., D. C., for mechanical equipment and distributing system in power plant, here. Noted Aug. 25.

O., Cincinnati—Wicket Irons, etc.—Until Sept. 8, by U. S. Engineer Office, 2d Dist., furnishing and delivering, wicket irons, horses and props, for Ohio River Dam 30; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

Mass., Boston—Mechanical Equipment—Spec. 4495—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids installing mechanical equipment, piping and constructing alterations in boiler plant, here, (1) work complete, from W. G. Cornell Co., 923 12th St., N.W., Wash., D. C., (1) $98,115, time as specified, (2) deduct $300; Shevlin Eng. Co., 119 West 34th St., New York City, (1) $106,711 (180 days), (2) deduct $200; Carroll Electric Co., 714 12th St., Wash., D. C., (1) $109,200 (180 days), (2) deduct $400. Noted Aug. 11.

Pa., Philadelphia—Dredging—U. S. Engineer, 815 Witherspoon Bldg., received bids dredging in lower Delaware River, Liston Lighthouse Range, (1) Sect. 10, (2) Sect. 11, involving 1,015,300 cu.yd. and 931,200 cu.yd. respectively, from Arundel Corp., Pier 2, Pratt St., Baltimore, (1) $0.205 (2) $0.205 (1 and 2) $0.205 per cu. yd.; Amer. Dredging Co., 410 Mariner and Merchant Bldg., Phila., (1) $0.225 (2) $0.235 (1 and 2) $0.199 per cu.yd. Noted July 28.

D. C., Wash.—Building—Secretary, Dept. of Interior, received bids constructing home economics building at Howard University, from Consolidated Eng. Co., Calvert Bldg., Baltimore, $169,900 (140 days); A. L. Smith & Co., Woodward Bldg., $175,500; S. R. Harris Co., Union Savings Bk. Bldg., $179,800 (250 days). Noted Aug. 4.

D. C., Wash.—Mechanical Equipment—Secretary, Dept. of Interior, received bids furnishing and installing, in home economics building, at Howard University, from Federal Heating Co., 310-13th St., N. W., $14,711 (60 days); Standard Eng. Co., 2029 I St., N. W., $14,770 (60 days); S. W. Rittenhouse, 1316 Harvard St., N. W., $15,252 (110 days). Noted Aug. 4.

★Va., Quantico—Elevated Water Tanks—Spec. 4506—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing at Marine Barracks, here, to Pittsburgh-Des Moines Steel Co., 959 Munsey Bldg., Wash., D. C., $7,360 (120 days). Noted Aug. 25.

★Miss., Vicksburg—Towboat—Mississippi River Comn., 3d Dist., P. O. Box 404, let contract furnishing steel hull towboat, to Howard Shipyard & Dock Co., Jeffersonville, Ind., $49,697. Noted July 7.

Mich., Detroit—Dredging—U. S. Engineer, 337 Federal Bldg., received bids dredging shoal areas in West Neebish Channel, St. Marys River, involving 90,000 cu.yd. sand, silt and clay, with possible overdepth of 30,000 cu.yd., from Duluth-Superior Dredging Co., foot of 45th Ave., W., Duluth, Minn., $0.359 per cu.yd.; Greilling Bros. Co., 100 Blk. E. Walnut St., Green Bay, Wis., $0.42; Great Lakes Dredge & Dock Co., 104 South Michigan Ave., Chicago, $0.45. Noted July 28.

FEDERAL POWER COMMISSION

Application for Licenses and Permits

Applications

237. Excelsior Water & Mining Co., Sacramento, Cal.—Wants permit for power development on the Middle and South Forks of Yuba River, and on Deer Creek, in Nevada and Yuba Counties, Tahoe National Forest, Cal. Project includes 3 reservoirs, 6 mi. tunnels, 55 mi. oncrete lined canals, and 6 power houses, with a total development of 115,000 hp.

238. Los Angeles, Cal.—Wants permit for power project in Boulder Canyon, Colorado River, Mohave Co., Ariz., and Clark Co., Nev. Dam 550 ft. high.

239. Northern States Power Co., Minneapolis, Minn.—Wants to develop power at U. S. Dam 1, St. Paul, Mississippi River.

Licenses and Permits Granted

70. Rock Creek Power Co., Missoula, Mont.—Reservoir, conduit and power house on Rock Creek, Granite Co., Mont., in Missoula National Forest.

108. Wisconsin-Minnesota Light & Power Co., Grand Rapids, Mich.—Dam and Reservoir at Fork of Chippewa River, Sawyer Co., Wis.

130. G. S. Eyre, Buena Vista, Cal.—Diversion dam, pipe line, power house and Transmission line, Chalk Creek, Chaffee Co., Col.

55. R. Bingham, Pensacola, Fla.—Preliminary permit power projects on Perdido, Styx and Blackwater Rivers.

199. Columbia Ry. & Navigation Co., Columbia, S. C.—Preliminary permit 24 mi. canal, and power development.

Miscellaneous

PROPOSED WORK

Ratproofing Sheds—New Orleans, La.—Bd. Port Comrs. receives bids in about 30 days, for ratproofing wharves and approaches on St. Andrew St., cost $40,000, Celeste St., $250,000, Robins St., $200,000. A. Gallagher, c/o Bd. Port Comrs., 1 Canal St., ch. engr. Noted Aug. 4.

Park, etc.—Monett, Mo.—Industrial Development Co. having plans prepared by B. Robbins, archt. and engr., developing park near Verona. Project includes grading and paving, sewerage system and 2 or 3 story club buildings. About $400,000.

Power Development—Cochrane, Ont.—Hollinger Consolidated Mines, Ltd., Timmins, having surveys made by Lutcliffe & Nellands, engrs., New Liskeard, for developing water power, at Kettle Falls on Abitibi River about 20 mi. northwest of here. About $2,000,000.

BIDS DESIRED

Standpipe—Belchertown, Mass.—Until Sept. 8, by W. A. Merrill, Room 109E, State House, Boston, for roofed steel standpipe at the proposed State School, here. Advertised in this issue.

Core Borings — New Britain, Conn. — Until Sept. 7, by Bd. Water Comrs., 201 City Hall, for core borings at Shuttle Meadow Dam, here and Southington. J. D. Williams, city engr.; advertised in this issue.

Crane, New York, N. Y.—Until Sept. 28, by C. L. Cadle, supt. Pub. Wks., Capitol, Albany, furnishing and installing one 3 ton electric burtoning crane, on barge canal terminal, at Mott Ave., here, Terminal Contr. 119; advertised in this issue.

Pipe—Haworth, N. J.—Until Sept. 6, by Boro., Boro. Hall, furnishing 1,750 ft. 12 in. No. 2 tile pipe, f.o.b. Haworth. G. G. Haberstick, boro clk.; advertised in this issue.

Levee—Frankfort, Ky.—Until Sept. 6, by W. S. Rooson, mayor, constructing levee. S. F. Crecelius, Danville, civil engr.; advertised in this issue.

Ball Park—Detroit, Mich.—Detroit Base Ball Co., c/o F. Navin, pres., Trumbull and Michigan Aves., receiving bids building 1 story, concrete and steel addition to ball park, on Michigan Trumbull Aves. About $250,000. Osborn Eng. Co., 2848 Prospect Ave., Cleveland, O., engrs.

Fire Hydrants — Detroit, Mich. — Until Sept. 6, by Dept. Purchases & Supplies, furnishing 500 fire hydrants for extension of high pressure fire mains. About $25,000.

Standpipe System—Detroit, Mich.—Until Sept. 6, by Street Ry. Comn., 155 West Congress St., furnishing and erecting steel standpipe system for street railway car house, office and repair shops. About $25,000. W. C. Markham, 155 West Congress St., engr.

Cast Iron Pipe—St. Paul, Minn.—Until Sept. 6, by H. W. Austin, city Purch. Agt., furnishing 800 lengths 6 in. c.i. pipe for water dept. O. Claussen, city engr.

Docks—Houston, Tex.—Until Sept. 12, by City Secretary, building, 80 x 800 ft. creosoted pile and timber extension to cotton docks on North Side of Turning Basin. O. F. Holcombe, mayor.

Subway—Aurora, Ont.—Until Sept. 8, by W. A. McLean, deputy minister of highways, Toronto, building concrete subway under Grand Trunk R. R. tracks, here. About $35,000. G. Hogarth, Parliament Bldgs., Toronto, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Foundation—Fairfield, Conn.—Porcupine Co., Worden Ave., Bridgeport, let contract building foundation of 1 story, 130 x 320 ft. plant, on Post Rd., here, to T. J. Pardy Constr. Co., 1481 Seaview Ave., Bridgeport. About $30,000. Noted June 9 under "Industrial Works."

Gyratory Crusher, etc.—New York, N. Y.— H. H. Curran, pres. Manhattan Boro, Municipal bldg., opened bids Aug. 24, furnishing and installing (1) gyratory crusher, inclined bucket elevator and asphalt mixer, etc., furnishing and erecting (2) new structural steel, cutting and reerecting steel in Municipal Asphalt Plant, 90th St. and East River, from C. Meads & Co., 217 W. 14th St., (1) $14,477, (2) $2,155; O'Rourke Crane & Eng. Co., Inc., 366 5th Ave., (1) $14,915, (2) $2,506; P. T. Cox Contg. Co., 154 Nassau St., (1) $14,985, (2) $2,950; E. Balaban, 92 Morningside Ave., (2) $2,209. Noted Aug. 18.

★Wood Paving Blocks—New York, N. Y.—City let contract furnishing and delivering 5,500 sq.yd. wood paving blocks, to Amer. Creosoting Co., 17 Battery Pl., $12,595. Noted Aug. 18.

★Wharf—New Orleans, La.—Bd. Port Comrs. let contract building wharf and approaches at foot of Charbonnet St., to Dalgren Constr. Co., Room 303 Canal Bank Bldg., $99,450.

★Tunnell—Cleveland, O.—City let contract building underground passage-way in Edge-water Park, involving 560 cu.yd. concrete and 42,000 lb. steel, etc., to Central Dredging Co., Bangor Bldg., $44,517.

Boilers and Stokers—Detroit, Mich.—Water Bd. received bids furnishing and installing four 400 h.p. water tube boilers in pumping station, from Wickes Boiler Co., 512 North Water St., Saginaw, $36,187; Erie City Iron Wks., Erie, Pa., (single drum boilers), $35,000 Springfield Boiler Co., 330 South East Grand Ave., Springfield, Ill., (single cross drum boilers) $36,300; also four underfeed stokers for 400 h.p water tube boilers, from Detroit Stoker Co., 7342 Woodward Ave., $22,230; Amer. Eng. Co., Aramingo and Cumberland Sts., Phila. Pa., $22,995; Frederick Eng. Co., Frederick, Md., $22,656.

★Breakwater — Milwaukee, Wis. — Park Bd., City Hall, let contract constructing 260 lin. ft. rubble mound breakwater on Lake Shore Dr., Sect. 3, involving 15,000 tons stone, to E. E. Gillen Co., 120 Wisconsin St., at $3.22 per ton. Noted Aug 4.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 12	Allegan, Mich.	Sept. 8
Sept. 13	Prairie du Chien, Wis.	Sept. 1
Sept. 13	South Euclid, O.	Sept. 8
Sept. 13	Dysart, Ia.	Sept. 8
Sept. 14	Central Islip, N. Y. Adv. Sept. 1 and 8.	Sept. 1
Sept. 15	Phila., Pa.	Sept. 8
Sept. 15	Ashland, Ky.	Sept. 1
Sept. 16	Abilene, Tex. Adv. Sept. 1 and 8.	Aug. 25
Oct. 7	Collinsville, Ill. Adv. Sept. 1 and 8.	Sept. 1

SEWERS

Sept. 12	Breckenridge, Minn.	Sept. 8
Sept. 13	Encorse, Mich.	Sept. 8
Sept. 13	Passaic, N. J.	Aug. 25
Sept. 14	Brooklyn, N. Y.	Sept. 8
Sept. 15	Laurel, Del. Adv. Sept. 8.	Sept. 8
Sept. 16	Austin, Minn. Adv. Sept. 1 and 8.	Sept. 1
Sept. 19	Hamilton, Ont.	Sept. 1
Sept. 20	—Garfield, N. J.	Sept. 1
Sept. 20	Kendallville, Ind. Adv. Sept. 1 and 8.	Sept. 8
Oct. 4	Clifton, N. J.	Sept. 8

BRIDGES

Sept. 12	Middlebourne, W. Va.	Aug. 25
Sept. 12	Hummelstown, Pa.	Sept. 1
Sept. 12	Madisonville, Tex. Adv. Sept. 1 and 8.	Sept. 1
Sept. 13	Maryland Adv. Sept. 1 and 8.	Sept. 1
Sept. 14	Danville, Ill.	Sept. 8
Sept. 15	London, Ont.	Aug. 25
Sept. 16	Columbus, O.	Aug. 25
Sept. 16	Detroit, Mich.	Sept. 8
Sept. 19	Bronxville, N. Y. Adv. Sept. 1 and 8.	Sept. 8
Sept. 20	North Carolina	Sept. 8
Sept. 21	Morristown, N. J.	Sept. 8
Sept. 21	Denville, N. J. Adv. Sept. 8.	Sept. 8
Sept. 22	Akron, O.	Sept. 1

EXCAVATION AND DREDGING

Sept. 19	Cape Girardeau, Mo.	Sept. 8
Sept. 19	Trenton, Mo.	Sept. 8
Sept. 20	Waseca, Minn.	Sept. 8
Oct. 4	Trenton, N. J. Adv. Sept. 8	Sept. 8

STREETS AND ROADS

Bids Close		See Eng. News-Record
Sept. 12	Carlyle, Ill.	Sept. 8
Sept. 12	Louisiana	Aug. 25
Sept. 12	Royal Oak, Mich.	Sept. 8
Sept. 12	Wash., D. C.	Sept. 1
Sept. 13	Sparta, N. J. Adv. Sept. 1 and 8.	Sept. 1
Sept. 13	Maryland Adv. Sept. 8.	Sept. 8
Sept. 14	Brooklyn, N. Y.	Sept. 8
Sept. 14	St. George, S. I., N. Y.	Sept. 8
Sept. 14	Wisconsin	Sept. 8
Sept. 15	Kalamazoo, Mich. Adv. Sept. 1 and 8.	Sept. 1
Sept. 15	Nelson, Neb.	Sept. 1
Sept. 15	Hastings, Minn.	Sept. 8
Sept. 15	Onawa, Ia.	Sept. 8
Sept. 16	Junction City, Kan.	Aug. 25
Sept. 16	Junction City, Kan.	Sept. 1
Sept. 16	New York, N. Y.	Sept. 8
Sept. 16	Watseka, Ill.	Sept. 8
Sept. 19	Clarksville, Tex.	Aug. 25
Sept. 19	California	Sept. 8
Sept. 20	Alabama	Sept. 8
Sept. 20	Danville, Ky.	Sept. 8
Sept. 20	Lexington, S. C.	Sept. 8
Sept. 20	North Carolina	Sept. 8
Sept. 20	New Orleans, La.	Sept. 1
Sept. 20	St. Louis, Mo. Adv. Sept. 8.	Sept. 8
Sept. 27	New Orleans, La.	Sept. 1
Sept. 27	Amite, La.	Sept. 8
Sept. 28	Maplewood, Mo.	Sept. 8
Sept. 30	Emporia, Kan.	Sept. 8
Sept. 30	Troy, Kan.	Sept. 8
Oct. 3	Klamath Falls, Ore. Adv. Sept. 8.	Sept. 8
Oct. 7	Belleville, Kan.	Sept. 8
Oct. 11	Leavenworth, Kan.	Sept. 8

INDUSTRIAL WORKS

Sept. 15	Phila., Pa.	Sept. 8
Sept. 15	Sedalia, Mo.	Sept. 8
Sept. 26	Madison, Wis.	Sept. 8

BUILDINGS

Sept. 12	Mt. Lebanon, Pa.	Sept. 8
Sept. 12	Shelby, Mich.	Aug. 25
Sept. 12	Stevens Point, Wis.	Sept. 1
Sept. 13	Cedar Rapids, Ia.	Sept. 8
Sept. 13	St. Louis, Mo.	Sept. 8
Sept. 15	Detroit, Mich.	Aug. 25
Sept. 15	Fairfield, Ia.	Sept. 1
Sept. 15	Phila., Pa.	Sept. 8
Sept. 15	Rockford, Ill.	Sept. 1
Sept. 15	Tyler, Tex.	Sept. 1
Sept. 15	Cushing, Okla.	Sept. 8
Sept. 15	Wilmette, Ill.	Sept. 8
Sept. 16	Great Bend, Kan.	Aug. 11
Sept. 16	Kearney (Arlington P. O.) N. J.	Aug. 18
Sept. 17	Oberlin, O.	Sept. 8
Sept. 19	Venice, O.	Sept. 8
Sept. 20	Detroit, Mich.	Aug. 25
Sept. 20	Salisbury, Md.	Sept. 8
Sept. 22	St. Louis, Mo.	Sept. 8
Sept. 22	Warrensville, O.	Sept. 1
Sept. 23	Manhattan, Kan.	Sept. 8
Sept. 23	Rutherford, N. J.	Sept. 8
Sept. 25	Betterton, Md.	Sept. 8
Sept. 26	Cheyenne, Wyo.	Sept. 1
Sept. 27	Ann Arbor, Mich.	Sept. 8
Sept. 27	Des Moines, Ia.	Sept. 8
Sept. 28	Rochester, N. Y.	Sept. 8
Sept. 30	Shelton, Conn.	Sept. 8
Oct. 24	Cleveland, O.	Sept. 8
Feb. 1	Williamsport, Pa.	Sept. 8

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Sept. 8	Wicket Irons, etc.—Cincinnati, O. Adv. Sept. 1 and 8.	Sept. 1
Sept. 14	Pumping Units — Denver, Col.	July 28
Sept. 14	Power Plant Equipment — Yorktown, Va.	Sept. 1
Sept. 14	Power House, etc.—Yorktown, Va.	Sept. 8
Sept. 14	Cranes—Yorktown, Va.	Sept. 8
Sept. 14	Heating System — Wash., D. C	Sept. 8
Sept. 15	Airship Hangar—Belleville, Ill.	Aug. 18
Sept. 17	Riprap—Wash., D. C. Adv. Sept. 8	Sept. 8
Sept. 19	Dredging—Detroit, Mich. Adv. Aug. 25 to Sept. 8.	Aug. 25
Sept. 21	Machine Shop—Pearl Harbor, H. T.	Aug. 11
Sept. 22	Emergency Dams — Seattle Wash.	Aug. 11
Sept. 26	Hydraulic Dredge — Phila., Pa. Adv. Sept. 1 and 8.	Sept. 1
Sept. 27	Addition to Boiler House, etc. —Phila., Pa. Adv. Sept. 8.	Sept. 8

MISCELLANEOUS

Sept. 12	Garbage Disposal—Providence, R. I.	Aug. 11
Sept. 12	Docks—Houston, Tex.	Sept. 1
Sept. 12	Rails, etc.—Lackawanna, N. Y.	Sept. 8
Sept. 12	Cast Iron Pipe—Mendham, N. J. Adv. Sept. 8.	Sept. 8
Sept. 13	Conductor and Guard Rails —Phila., Pa.	Sept. 8
Sept. 15	Jetties — Rehoboth Beach, Del. Adv. Sept. 8.	Sept. 8
Sept. 16	Inorganic Dust—New York, N. Y.	Sept. 8
Sept. 17	Railway Ties — Toronto, Ont.	Aug. 11
Sept. 17	Fire Alarm System—Philipsburg, Pa.	Sept. 8
Sept. 19	Incinerators—Dallas, Tex.	Sept. 8
Sept. 28	Core Stone, etc.—Coney Island (Brooklyn P. O.) N. Y.	Sept. 8
Sept. 28	Crane—New York, N. Y. Adv. Sept. 1 and 8.	Sept. 1
Sept. 30	Breakwater—Coburg, Ont.	Sept. 8
Oct. 4	Cranes, etc.—Stapleton, S. I., N. Y.	Sept. 8

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Fla., Jacksonville—City plans to purchase c.i. pipe for extending waterworks system. About $100,000. J. G. Bailey, supt. waterworks. F. M. Edwards, city engr.

O., Elyria—City soon receives bids improving waterworks system, to include brick buildings, cover to concrete reservoir, installation of machinery, construction of lineal chimney, rein.-con. coal trestle with railroad siding and coal handling equipment. C. W. Tarr, Elyria, engr.

Mich., Iron Mountain—City election Sept. 12, to vote on $200,000 bonds to buy existing waterworks plant and $100,000 bonds to enlarge existing plant after purchase to 2,000,000 gal. capacity. Alvord & Burdick, 8 South Dearborn St., Chicago, Ill., archts.

Ill., Hinsdale—City having plans prepared laying 6-8 in. c.i. water mains. About $27,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Litchfield—City having plans prepared building concrete dam, filter plant, 2,000,000 gal. capacity, and pumping station. About $175,000. Pearse, Greeley & Hansen, 39 West Adams St., Chicago, engrs.

Wis., Cambria—See "Sewers."

Wis., Spring Green—City, A. Schlosser, clk., having plans prepared extending waterworks system, including 50,000 gal. steel tank and 125 ft. tower. About $30,000. W. G. Kirchoffer, 31 Vroman Blk., Madison, engr.

Minn., Cloquet—City having plans prepared for deep well, electric pumping station and water main. About $25,000. J. Wilson, First Natl. Bank Bldg., Duluth, engr.

Okla., Cordell—City having plans prepared for filtration plant. About $50,000. V. V. Long, & Co., Colcord Bldg., Oklahoma City, engrs.

Col., Stratton—City voted $50,000 bonds to construct complete waterworks system. W. B. Rollins & Co., Ry. Exch. Bldg., Kansas City, Mo., engrs.

Utah, Salem—City plans to sell $21,000 bonds to build small pumping plant and distribution system of galvanized steel pipe. McGonagle & Ulrich, Deseret Bank Bldg., Salt Lake City, engrs.

Ont., Toronto—York Twp. soon receives bids building 6 in. c.i. water mains in Glenvalley Drive, Gilmour, Crescent, Main, and Regent Sts., Graham, Scott and Park Rds., Glenora, Gilbert, Nickel, Kersdale, Ewart, Kane, Alleen, Ralph, Franklin, Greenwood, Guestholme, and LeRoy Aves. About $68,450. F. Barber, 40 Jarvis St., engr.

BIDS DESIRED

Pa., Phila.—Until Sept. 15, by F. H. Caven, dir. Pub. Wks. Dept., improving Lardners Point pumping station, furnishing coal handling equipment, building additions to boiler houses No. 2 and 3, Contr. 513; concrete flumes around sedimentation basins for aerating water, Contr. 514; chlorine apparatus, Contr. 516; furnishing and laying terra cotta electric ducts from Belmont pumps to filters, Contr. 517; permanent installation of pumping units at Belmont station, constructing new foundations and moving pumps and machinery to same, Contr. 519; coal storage and reclaiming apparatus alterations and additions to coal storage and handling system, Contr. 520; furnishing and delivering check valves and gate valves, Contr. 524; air valves for 60 in. steel main, Contr. 525; concrete valves boxes, Contr. 526; laying 20 in. c.i. pipe on Sansom St., Contr. 527; electric transmission cable for Belmont pumping station, about 7,000 ft. Contr. 528; c.i. pipe and specials, 20 and 30 in. pipe; electric crane for Shawmut pumping station. About $400,000. C. E. Davis, ch. Water Bureau, City Hall.

O., South Euclid—Until Sept. 13, by Village, building watermains and stone sidewalks on Plainfield Rd., involving 3,580 ft. 6.8 in. c.i. pipe and 25,000 sq.ft. 2½ in. x 5 ft. stone sidewalk. About $30,725. F. A. Pease Eng. Co., Marshall Bldg., Cleveland, engrs.

Mich., Allegan—Until Sept. 12, by B. M. Berry, city clk., constructing open well and pump house. Well to be 40 ft. deep, 22 ft. in diameter, bottom 21 ft., conorete on steel shoe, upper part to be lined with brick. About $25,000. Hoad & Decker, 303 South State St., Ann Arbor, engr.

Ia., Dysart—Until Sept. 13, by city, building water main extensions, involving 9,934 lin. ft., 4 in. c.i. pipe, 2 850 castings, etc. About $20,000. N. R. Barber, Waterloo, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★O., Garfield Heights (Cleveland, P. O.)—Village let contract laying water mains to J. B. Lynn, 1852 Rudwick Rd., Cleveland, $43,443.

★O., South Euclid—Village let contract laying 4,780 ft. 8 in. c.i. watermains, to Curro Bros., 12206 Mayfield Rd., Cleveland, $22,576. Noted Aug. 11.

Wis., Cedarburg—City received bids building waterworks system and sewers, from G. W. Mulholland, Main St., Rockford, $67,541; M. Dervoz, 226 7th St., Milwaukee, $68,789; Brogan & Schaefer, Green Bay, $68,028. W. G. Kirchoffer, 22 North Carroll St., Madison, engr. Noted Aug. 18.

★Ia., Pella—City let contract building water tank, 200,000 gal. capacity, and 110 ft. steel tower, to Pittsburgh-Des Moines Steel Co., 9th and Tuttle Sts., Des Moines. About $25,000. Noted Aug. 11.

★Mo., Hayti — City let contracts constructing and furnishing two 100 ft. deep wells, 2 triplex pumps direct connections to 15 hp. oil engines, 3,000 ft. 4-6 in. c.i. pipe, 30,000 gal. capacity steel tank on 100 ft. tower; pipe line work to City Plumbing & Heating Co., Caruthersville; concrete work, to M. F. Baldwin, Hayti; tank and tower, to Chicago Bridge & Iron Wks., 37 West Van Buren St., Chicago, Ill.; engines, to Fairbanks Morse Co., 1218 Liberty St., Kansas City. Total cost $25,000. Noted Aug. 4.

★Que., Montreal—City let contract building 130 x 212 ft. concrete, brick and steel pumping station, concrete flooring, concrete foundation, on Pointe St. Charles Ave., to Atlas Constr. Co., 37 Belmont St., $498,800.

★Ont., York—Twp. let contracts building 6 in. water mains in Linsmore Blvd., Dunnegan, Graham and Forest Hill Aves., to J. Ruscica, c/o F. Barber, 40 Jarvis St., Toronto; Hoborne St., Mulberry, Ester, Lumsden and Barber Aves., to P. Mohan, c/o F. Barber, 40 Jarvis St., Toronto; Monarch Park Ave., Main Savoy, St. James and St. Stephens Sts., to A. Gavotti, 527 Euclid Ave., Toronto; Hillary Ave., to G. Thompson, 40 Jarvis St., Toronto. About $30,000.

Sewers

PROPOSED WORK

Me., Biddeford—City plans to build sewerage system. Cost between $30,000 and $35,000. N. E. Fosdick, chn. Engineer not selected.

N. J., Clifton—City having plans prepared building comprehensive sewerage system, covering approximately 75 mi. mains and laterals. G. L. Watson, 16 East 41st St., New York City, consulting engr. M. R. Pugh, city ch. engr.

W. Va., Milton—City election Sept. 27, to vote on $35,000 bonds for sewerage and waterworks improvements. G. Ball, mayor.

Miss., Greenwood—City election Sept. 15, to vote $55,000 bonds to construct storm sewers and purchase pumps. F. T. Walker, city engr.

O., Dayton—City plans to build Vine St. relief sewer 30 in. vitr. and concrete and 48 in. concrete N. C. R. outlet sewer to Miami River. About $74,700 and $11,600 respectively. G. Baker, city engr.

O., Dayton—City having plans prepared for 2 mi. 30-60 in. vitr. and concrete storm sewers in Bway. and Riverdale Systems. About $125,000 and $175,000 respectively. G. Baker, city engr.

Ill., Decatur—City having plans prepared building concrete and broken stone sewage treatment plant. About $500,000. Pearse, Greeley & Hansen, 39 West Adams St., Chicago, engrs.

Ill., East Moline—City having plans prepared laying 10 to 12 in. glazed sewer pipe in 3d St. About $25,000. L. E. Sneary, East Moline, engr.

Wis., Cambria—Village to build new sewerage and waterworks systems. W. G. Girchoffer, Vroman Blk., Madison engr.

Wis., LaCrosse—City having plans prepared building trunk sewers and 8-10 in. vitr. pipe sewers in 16th St. from Mississippi to Green Bay Sts. G. P. Bradish. City Hall, engr.

Wis., Ripon—City plans to rebuild present sewage disposal plant, trickling filter type. About $25,000. F. A. Preston, clk. Engineer not selected.

Utah, Salt Lake City—City having preliminary plans prepared extending present sewerage system in West Side. About $100,000. S. Q. Cannon, city engr.

Ont., Sandwich—Colchester North Twp. plans to build 7 or 8 mi. tile drains. About $50,000. A. C. Atkinson, Gesto, secy.-treas.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 14, by E. Riegelmann, boro pres., Boro Hall, building sewers in (1) Newport St. from Hopkinson Ave. to Bristol St. and Bristol St. from Newport St. to Hegeman Ave., (2) West 10th St. between Ave. R and Ave. S, (3) Troy Ave. between Ave. M and Flatlands Ave., East 43d St. between Ave. M and Flatlands Ave., Ave. M between East 43d to East 45th Sts., temporary sewer in (4) Ave. L between Coney Island Ave. and East 14th St. and outlet sewer in East 13th St. between Ave. L and Ave. N, sewer basin in (6) Sheridan and Pitkin Aves.

N. J., Clifton—Until Oct. 4, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, constructing Part of Sect. 25, Rutherford Branch Intercepting Sewer, consisting of Yantacaw River-Crossing, here and in Lundhurst Twp., involving earth excav., dredging and refilling, trench and open excavation, for 20 in. and 4 in. c. i. pipe crossing Passaic River; laying 20 in. and 4 in. c. i. pipe line across Passaic River, including furnishing of joint materials, making, testing and tightening of pipe joints, (all c. i. pipes and specials will be furnished by the Commissioners); 5,000 lin. cu.yd. earth filling, etc. J. H. Quigg, clk.

Del., Laurel—Until Sept. 15, by the Mayor constructing combined sewers. F. H. Dryden, Salisbury, Md., engr.; advertised in this issue.

Ind., Kendallville—Until Sept. 20, by Common Council constructing sewer under improvement Resolution 49. C. D. Traxler, Kendallville, engr.; advertised in this issue.

Mich., Encorse—Until Sept. 13, by G. Jerome, engr., 1331 Majestic Bldg., Detroit, constructing 2 ring, brick and vitrified crock sewer with connections and brick manholes, open trench, in Cicotte Ave., from High St. to alley between Beach and 5th St. About $35,000.

Minn., Breckenridge—Until Sept. 12, by city, building trunk line storm sewers in about 15 blocks and lateral storm sewers in about 6 blocks. About $30,000. P. A. Trauax, acting clk.

Ont., Hamilton—Until Sept. 19 by S. H. Kent, city clk., building sewers in Wellington St. from Ferrier St. to Hamilton Harbor, involving 297 ft. 8 ft. 6 in. x 8 ft. 6 in. rectangular concrete twin section in open cut, 1,070 ft. 10 ft. 3 in. x 12 ft. 10 in. horse shoe section, rein.-con., 446 ft. 7 x 8 ft. rectangular rein.-con. twin section, cost, $65,000; in Wellington St. from Ferrier to Barton Sts., 218 ft. 5 ft. 11 in. x 5 ft. 11 in. rein.-con. twin section, 49 lin.ft. 7 x 8 ft. rein.-con. twin section, 1,429 lin.ft. 9 ft. 3 in. x 11 ft. rein.-con. horse shoe section, $70,000. E. R. Gray, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Conn., New Haven — City received bids Aug. 26 extending sewers in Chapel, Fountain, South Water and Wight Sts., from Berardino & Manochio, 179 Market St., Hartford, $32,447; Dwyer & Mannix, New Haven, $33,027; United Contg. Co., Meriden, $36,732. Noted June 9.

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Aug. 31, constructing sanitary sewer in (1) West 35th St., (2) West 37th St., (3) 73rd St., (4) 76th St., (5) 61st St., (6) Kemmit Pl., from J. J. Guinan Contg. Co., 2314 Gravesend Ave., (1) 89% of engineer's estimate ($10,000), (2) 99% ($8,000); P. J. Donlon Contg. Co., 823 3rd St., (1) 91.7% (2) 91.7%; A. M. Hazell, Inc., 26 Cortlandt St., New York City, (1) 93% (2) 92½%; J. Jennings, Belle Harbor, L. I., 112% (2) 108% (3) 84% ($8,000) (4) 84.6% ($1,800), (5) 99.99% ($1,500), (6) 99.99% ($6,500); G. L. Schrade, (3) 79.49%; Murphy Bros., 8856 26th Ave., (3) 76% (4) 75%; F. Frey, 818 Ocean Parkway, (3) 72.99%; Tomasetti & Co., Inc., 1133 60th St., (3) 71.71%, (5) 69.69%, (6) 77.78%; Manmill Constr. Co., (6) 79.3% Noted Aug. 25.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, opened bids Sept. 1 constructing sewers and appurtenances in (1) Marion St., (2) 16th Ave., (3) Strong St., (4) Nostrand Pl.; tunnel sewer and

Sewers **(Continued)**

appurtenances (5) 13th St., from J. F. Clancy, Inc., 460 Lockwood St., Astoria, (1) $930.80, (2) $3,351, (4) $1,761; Peace Bros., Inc., 20 Main St., Flushing, (1) $1,262, (2) $3,551; B. Simpson, Hempstead Turnpike, Hollis, (1) $1,223, (2) $4,303; Seaside Contg. Co., Seaside, (3a) $64,005, (3b) $59,263; Conett Constr. Co., 303 East 21st St., New York City, (3a) $66,288, (3b) $65,677; F. Spinelli, 143 Jefferson St., Brooklyn, (3b) $64,781; J. F. Clancy, Inc., 460 Lockwood St., Astoria, (4) $1,760; J. H. Johnson Co., (4) $2,939; H. J. Mullen Contg. Co., Fulton St., Jamaica, (4) $1,816; P. McGovern, Inc., 50 East 42nd St., New York City, (5a) $1,444,000; Booth & Flinn, Ltd., 17 Battery Pl., New York City (5b) $842,000; Spencer, White & Prentis, Inc., 47 West 42nd St., (5b) $1,040,000; O'Rourke Eng. Constr. Co., Inc., 366-5th Ave., New York City, (5b) $1,124,000. Noted Aug. 25.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, 68 Hunterspoint Ave., let contract building sewer in Central Ave., to A. Paino, Corona, $139,570; Manor and Metropolitan Aves., etc., to F. Spinelli, 142 Jefferson St., Brooklyn, $3,641 and $21,953, respectively; 4 corners of Boulevard and Bodine St., to Kennedy & Smith, 93 Amity St., Flushing, $1,661. Noted Sept. 1.

★N. Y., S. I., St. George—City let contract building sewage treatment plant and relay pumping station, to Disposal Equipment Co., 165 Bway, New York City, $79,835. Noted Aug. 25.

★O., Cleveland—City let contract building sewers in Dugway Brook, to N. Carroccio, 14109 Benwood Ave., $17,540; Bway. from Forman Ave. to East 71st St., to W. McDowell & Son Co., 10319 Miles Ave., $7,843. Above work involves 480 ft. 6-ft. concrete pipe and 1,400 ft. 12-in. vitr. pipe.

★Wis., Two Rivers—City let contract building 15,713 ft. 6-12 in. sewers and outfall sewers in various streets, to W. O. Bahr, 910 South 12th St., Manitowoc, $30,778. Noted Aug. 25.

★Ia., St. Ansgar—City let contract furnishing and laying 26,000 lin ft. 8 in., 3,000 ft. 10 in. and 1,500 ft. 12 in. sewer pipe in various streets, to E. L. Royer, 1155 13th St., Des Moines, $53,699. Noted July 28.

★Minn., New Prague—City let contract building sewerage system and sewage disposal plant, involving 32,250 lin.ft. sanitary sewers, treatmen plant and outfall sewer, etc., to W. B. Carter, Sioux City, Ia., $60,095.

★Mo., St. Louis—City let contract building sewer in Rock Creek Sewer Dist. 6, to Fruin & Colnon Constr. Co., Merchants Laclede Bldg. About $61,000. Noted Aug. 25.

Cal., Los Angeles—City received bids constructing cement pipe sewers in (1) 52nd St. between 1st and 7th Aves., and other streets in 52nd St. Sewer Dist., (2) 23rd St. between Vinyard Ave. and Virginia Rd., from B. Deragno, 1614 South Hill St., (1) $105,436, (2) $63,208; L. Miletich, 610 West 54th St., (1) $113,000, M. Birkich, Los Angeles, (1) $121,000, (2) $67,400, S. Zarubica, 3006 6th Ave., (2) $61,000.

Bridges

PROPOSED WORK

Mass., Danvers—Town having plans prepared by T. A. Appleton, engr., 237 Essex St., Salem, repairing highway bridge on Liberty St. About $30,000. J. E. Nightingale, clk.

Kan., Wichita—Sedgwick Co. had plans prepared constructing six 50 ft. concrete T girder spans on Sedgwick Bridge, with concrete piers and abutments. About $50,000. M. Roseberry, Wichita, engr.

Que., Montreal—A. E. Doucet, City Hall, soon receives bids building concrete and steel bridge on Sherbrooke St. About $250,000. R. W. Mitchell, Montreal, engr.

BIDS DESIRED

N. Y., Bronxville—Until Sept. 19, by Bronx Parkway Comn., 72 West Pondfield Rd., constructing Bridges 17 and 18, over Bronx River. J. Downer, engr. and secy.; advertised in this issue.

N. J., Denville—Until Sept. 21, by State Highway Dept., Broad St. Bank Bldg., Trenton, constructing Bridge "M," M. P. 2. 7 E, on Route 12, between here and Parsippany. C. A. Mead, 790 Broad St., Newark, bridge engr.; advertised in this issue.

N. J., Morristown—Until Sept. 21, by State Highway Comn., Broad Street Bank Bldg., Trenton, building 27 ft. span I-beam bridge, 30 ft. wide, Morris Co. About $25,000. C. Mead, 790 Broad St., Newark, engr.

North Carolina—Until Sept. 20, by State Highway Dept., at div. office Asheville, building bridges and culverts on State Project 557 ,Madison and Yancey Counties, involving 1,846 cu.yd. Class A concrete, 75 cu.yd. rubble masonry, 190,980 lb. reinforcing steel, etc., about $58,000; on State Project 548, Clay Co., involving 844 cu.yd. Class A concrete and 64,380 lb. reinforcing steel, $25,300. C. M. Upham, Raleigh, state highway engr.

Mich., Detroit—Until Sept. 16, by Dept. Pub. Wks., City Hall, constructing rein.-con. and steel bridge, 18 ft. roadway with 4 ft. sidewalks, on Harbor Ave., over first canal east of Lakewood Blvd. About $25,000. J. Reid, Municipal Courts Bldg., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Conn., Hamden—Towns of Hamden and North Haven let contract building 60 ft. rein.-con. bridge, 35 ft. wide, over Mill River on Dixwell Ave., to Standard Constr. Co., 153 Court St., New Haven. About $26,000. Noted July 28.

★New Jersey—State Highway Dept., Broad Street Bank Bldg., Trenton, let contracts building bridges and culverts, on Route 12, Sect. 4, between New Village and Pleasant Valley, Franklin, Warren Co., including bridges 7, 6, 5 and 3, also culverts C, D and 4, to Korp & Korp, Belvidere, $29,930. Noted Aug. 18.

★Pa., Pittsburgh — City let contracts building 16th St. Bridge over Allegheny River, substructure, concrete core and stone veener to Vang Constr. Co., 21 Third Natl. Bank Bldg., Cumberland, Md., $457,220, steel superstructure to Fort Pitt Bridge Co., House Bldg., $541,822. Bids on concrete roadway and flooring will be taken later.

★North Carolina—State Highway Dept., at div. office, Marion, let contract building bridges and culverts on State Project 571, McDowell Co., to Prayton-Howton-Wood Constr. Co., Albany, Ga., $84,210. Noted Sept. 1.

★Indiana—State Highway Comn. let contracts to E. C. Wright, Bloomfield, building rein.-con. arch on State Rd. 3-E, Sect. B, structure 32, Federal Aid Project 6, Putnam Co., cost $32,703, deck plate girder, abutment repairs, State Rd. 3-C, Sect. D, structure 4, Federal Aid Project 6, Vigo Co., $5,046, rein.-con. arch on State Rd. 4-L, Sect. I structure A, Federal Aid Project 16, Orange Co., $19,011, rein.-con. arch on State Rd. 12-K, Sect. K, structure 28, Federal Aid Project 12, Morgan Co., $5,410, steel truss on State Rd. 22-E, Sect. E, structure 18, Federal Aid Project 22, Morgan Co., $10,482, steel truss wood block floor and paint steel on State Rd. 30-B, Sect. B, structure 27, Federal Aid Project 30, Greene Co., $9,370; to Oregonia Bridge Co., Lebanon, O., steel truss, wood block flooring, on State Rd. 1-F, Sect. B, structure 9A, Federal Aid Project 12, Jackson Co., $4,881; to Henley Constr. Co., rein.-con. slab on State Rd., 3-O, Sect. C, structure 12, Federal Aid Project 13, $9,431, steel truss on State Rd. 3-P, Sect. C, structure 45, Federal Aid 13, both Henry Co., $12,823; to D. Y. Stout, Crawfordsville, rein.-con. slab on State Rd. 3-I, Sect. B, structure 41, Federal Aid Project 15, Hendricks Co., $1,489; to Vincennes Bridge Co., Vincennes, steel truss on State Rd. 1-O, Sect. B, structure 44, Federal Aid Project 24, Hamilton Co., $7,190; to Dodge & Helby, Greencastle, steel truss on State Rd. 21-H, Sect. H, structure 20, Federal Aid Project 21, Adams Co., $19,314; to C. Kinsey, South Whitley, steel truss on State Rd. 44-I, Sect. I, structure 31, Federal Aid Project 44, Whitley Co., $6,204.

★Ill., Vandalia—J. V. Waddell, co. supt. highways, Fayette Co., (Vandalia), and C. E. Chester, co. supt. highways, Shelby Co., (Shelbyville), let contract constructing one 60 ft. steel span, 14 ft. roadway, on existing tubular piers at Mitchell Creek, near Herrick and Cowden, between Fayette and Shelby Counties, to St. Louis Structural Steel Co., Bank of Commerce Bldg., St. Louis, Mo. About $25,000. Noted Aug. 11.

★Cal., San Diego—San Diego Co. let contract constructing 7 span rein.-con. girder bridge, 266 ft. long, over Kitchen Creek, State Highway Div. 7, Route 12, Sect. F, to W. M. Ledbetter, 755 Pacific Electric Bldg., Los Angeles, $39,659.

Railways

PROPOSED WORK

New York—City of Rochester plans to build 14 mi. rapid transit and industrial railway, electric, in abandoned bed of Erie Canal; construct 1 mi. street, and 3 stations. Cost to exceed $4,000,000. L. Brown, City Hall, engr.

Utah—Utah Pacific R.R. Co., Provo, plans to build 76.334 mi. railroad, half of which is in mountains, from Juab, to Red Creek coal fields. O. R. Knight, pres. H. S. Kerr, ch. engr.

Excavation and Dredging

PROPOSED WORK

Fla., Moore Haven — Ditches — Moore Haven D. D. Assn., c/o E. Keen, engr., plans to construct 500 mi. 4 x 4 ft. ditches to drain 66,000 acres of land.

BIDS DESIRED

N. J., Trenton—Dredging—Until Oct. 4, by Bd. Commerce and Navigation, State House, dredging section of proposed inland waterway, connecting Barnegat Bay with Manasquan River. V. Gelineau, dir.; advertised in this issue.

Minn., Waseca—Ditch—Until Sept. 20, by Waseco Co. building Co. Ditch 15, Main 2, involving 59,605 lin.ft. 6-40 in. tile, 34 surf water inlets and 1 concrete bulkhead. About $78,127. G. Cox, Waseca, engr.

★Minn., Windom—Ditches—Cottonwood Co. let contracts building Co. Ditches 21 and 23 to D. A. Lahart, Windom, at $16,830, and $22,915 respectively; Co. Ditch 29, to Sorenson Drainage Co., Slayton, $18,000. Noted Aug. 18.

Mo., Cape Girardeau — Ditches — Until Sept. 19, by Bd. Supervs. Little River D. D., Cape Girardeau, building 46 mi. ditches 8-36 ft. wide, in Stoddard and Bolinger Counties, involving 690 acres clearing right of way and 1,640,000 yd. floating dredgework. Morgan Eng. Co., Goodwyn Institute, Memphis, Tenn., engrs.

Mo., Trenton — Ditch — J. Stewart, ch. engr., 1317 Tinsman Ave., receiving bids constructing 10 mi. ditch, involving 173,000 cu.yd. excav., for Little Medicine Creek D.D.

Mo., Trenton—Ditch—Until Sept. 19, by R. E. Kavanaugh, secy. Honey Creek D.D., constructing 18½ mi. drainage ditch, involving 422,000 cu.yd. dry earth excav. and 82 acres clearing. M. H. Mooney, Trenton, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Miss., Cleveland—Ditch—Comrs. Bolivar Co., Jones Bayou, D. D., let contract draining Jones Bayou, to Clark-Dennison Co., 610 McCall Bldg., Memphis, Tenn. About $33,000. Noted June 30.

★Minn., Fairmont—Ditches—Martin Co., let contracts building Judical Ditch 85, involving 94,690 lin.ft. 6-30 in. tile, 30,630 ft. open ditch, 163,506 cu.yd. excav., etc., open work to O. H. Diencks, Globe Bldg., Minneapolis, $21,092, labor and tile, to A. Sanderson, Blue Earth, $53,384, 7 bridges to Hangsted, Blackmore & Jacobson, Nevada, Ia., $12,500; No. 89, 145,685 ft. 6-38 in. tile, to North Star Tile Co., Mankato, $67,706, labor to Knudsen & Peterson, Blue Earth, $45,464; No. 96, 16,660 ft. 6-24 in. tile to Ceylon Cement Co., Ceylon, $7,407, labor to Wendtland & Bauer, Olivia, $6,097; No. 99, 34,625 ft. 6-30 in. tile, to Ceylon Cement, Ceylon, $32,442; No. 102, 2,375 ft. 6-20 in. tile, to Wendtland & Bauer, Olivia, $9,047.

★Ont., St. Catharines—Canal—Dept. Rys. & Canals, Parliament Bldgs., Ottawa, let contract building Sects. 1 and 2, Welland Ship Canal, to J. P. Porter & Co., Pickford and Black's Wharf, Halifax, N. S. About $8,000,000. Noted July 7 under "Welland."

Streets and Roads

PROPOSED WORK

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, rejected bids opened Aug. 24, regulating, grading and paving Rockaway Blvd. from New York Ave. to Nassau Co. line. About $280,000. Noted Sept. 1.

N. J., Jersey City—F. A. Dolan, city clk., plans to pave 20 blocks of Brunswick St. except portion now paved, with asphalt on concrete foundation. About $100,000. C. A. Van Keuren, City Hall, engr.

N. J., Weehawken—Joint Comm. of Weehawken and West Hoboken Twps., rejected bids opened Aug. 24, paving and laying 200 ft. 12 in. sewer pipe in 8 blocks of Paterson Ave. between Hackensack Plank Rd. and Weehawken St. About $100,000. Work will be readvertised. G. E. Bowe, Town Hall, West Hoboken, engr. Noted Sept. 1.

W. Va., Bridgeport—Town voted $37,000 bonds to pave 1½ mi., Philadelphia, Johnson, Virginia and Mechanic Sts., vitr. brick. T. Lang, Clarksburg, engr.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, drain, grade and topsoil 7.2 mi. State Project 583, Mitchell Co., about $108,000; clear, grub, drain, grade, bridge and topsoil 34.4 mi. State Project 647, Wilkes and Watauga Counties, $150,000; grade, drain and pave with concrete or some asphaltic type, 12.5 mi. State Project 631, Lincoln Co., $387,500; 18 mi. State Project 593, Randolph Co., $540,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, grade, drain, bridge and topsoil 7 mi. road from Mine Hole Gap to Henderson Co. line, State Project 639, Buncombe Co., cost $70,000; 8.4 mi. road from Newton to Lincoln Co. line, State Project 629, Catawba Co., $50,000. C. M. Upham, state highway engr.

Ala., Florala—City soon receives bids paving sidewalks, curbing and guttering various streets. About $60,000. J. Boyd, c/o State Highway Dept., Montgomery, engr.

Ala., Wedowee—Randolph Co. plans election to vote on $100,000 bonds to build roads, to be used by State Highway Dept. on trunk roads in county. Total cost $400,000. W. S. Keller, Montgomery, state highway engr.

Kentucky—State Highway Dept., Old Capitol Bldg., Frankfort, soon receives bids grading and draining 12 mi. road from Pikeville, Ky., to Williamson, W. Va., Pike Co., 15 mi. road in Lawrence Co., 10 mi. road from Smithland to Tennessee River, Livingston Co.; surfacing 12 mi. road Union Co.; grade, drain and surface 1½ mi. street, in Stearns, McCreary Co., brick, 2 mi. road in McCracken Co.; surfacing with macadam 3 to 4 mi. road in Bracken Co. J. S. Boggs, state highway engr.

O., Bellaire—City election Nov. 8, to vote on $80,000 bonds to improve Rose Hill Pike, 230th, West Washington and Seneca Sts. H. G. Althar, city engr.

O., Garfield Heights (Cleveland P. O.)—Village plans to grade, drain and pave East 106th St., Homeworth and Summerdale Aves. About $30,000. E. Hecker, Leader News Bldg., Cleveland, engr.

Mich., Detroit—City plans to pave Wabash Ave., Scovel Pl. and Morrell St., also various alleys with one course rein.-con. About $104,895. C. W. Hubbell, city engr.

Mich., Detroit—City plans to grade and pave McDonald Ave. from Radcliff to Warren Aves., cost $30,628, Burnette Ave., from Westfield to Plymouth Aves., $17,290, sheet asphalt on 8 in. concrete base; alley between West Grand Blvd., Trumbull and Lincoln Aves., $1,620, alley between Kerwin, Montclaid, Canfield and Warren Aves., $8,020, alley between Hurlbut, Bewick, Mack and Canfield Aves., $10,620, one course rein.-con. C. W. Hubbell, city engr.

Ill., Centralia—City having plans prepared paving Locust St., vitr. brick on concrete base. About $40,000. L. W. Lemon, city engr.

Ill., Charleston—City having plans prepared paving various streets, brick on concrete base. About $40,000. W. E. Miller, Mattoon, engr.

Ill., Harvey—City plans to pave various streets, asphalt on concrete base. About $25,000. A. W. Hersey, Harvey, engr.

Ill., Johnson City—City plans to pave various streets, vitr. brick on concrete base. About $25,000. P. B. Wilson, Marion engr.

Ill., Kewanee—Bd. Local Impvts. having plans prepared paving Main St., brick or asphalt. About $25,000. J. G. Palmer, Kewanee, engr. Noted Aug. 18.

Ill., Robinson—City having plans prepared paving various streets, brick on concrete base. About $25,000. E. F. Mail, Robinson, engr.

Ill., Urbana—City plans to pave various streets, vitr. brick on concrete base. About $28,000. A. M. Danley, engr.

Wis., Stevens Point—City plans to curb, gutter, lay sidewalks and pave 1 mi. Church and Seth Sts., with 1 course concrete. About $25,000. W. F. Reichardt, Watertown, engr.

Wis., Stevens Point—City rejected bids received Aug. 3, improving Brawley, Wisconsin and Water Sts., concrete. Work will be readvertised. W. F. Reichardt, Watertown, engr. Noted Aug. 11.

Ia., Creston—Union Co. had plans prepared grading and draining 13 mi. county highway. About $31,000. G. A. Perry, Creston, engr.

Ia., Washington—City plans to pave 27 blocks various streets. About $80,000. S. K. Kellogg, clk. Engineer not announced.

Minn., Crookston—City plans to improve 7 blocks of 6th St. from Bway. to University Ave. About $25,000. J. A. McLean, city engr.

Kan., Chapman—City Council receives bids in October improving 3,000 ft. various streets, 45 ft. wide. About $50,000. Ruckel Eng. Co., Hutchinson, engrs.

Kan., Chapman—City having plans prepared paving various streets, brick on concrete base About $25,000. Ruckel Eng. Co., Hutchinson, engrs.

Kan., Fredonia—Wilson Co. having plans prepared and receives bids about November, draining and gravel surfacing 1½ mi. Capitol Highway through Altoona, 20 ft. wide. About $35,000. C. P. Donald, Fredonia, engr.

Kan., Galena—Comrs. Cherokee Co. (Columbus), having plans prepared and receives bids about October, grading, draining and building bridges on 1.99 mi. Smelter Rd., 18 ft. wide. About $80,000. L. Noftzger, Columbus, engr.

Missouri—State Highway Dept., Jefferson City, plans to build 3.2 mi. state road from Columbia westward, State Aid Project 20.77, Boone Co., involving 30,617 cu.yd. earth and 20 cu.yd. rock excav., 2,709 cu.yd. borrow, 71.9 cu.yd. Class B and 85.4 cu.yd. Class C concrete masonry, $25,000; 5.57 mi. state road from Hartville southwestward, State Aid Project 20.73, Wright Co., 23,000 cu.yd. earth and 2,267 cu.yd. rock excav., 1,059 cu.yd. borrow, 235.8 cu.yd. Class B and 6 cu.yd. Class C concrete, etc., $25,000; 1.53 mi. state road from Paris southward, State Aid Project 20.85, Monroe Co., 9,737 cu.yd. earth excav., 52 cu.yd. Class B and 3.8 cu.yd. Class C concrete masonry, $7,233; 1.82 mi. state road from Paris northwestward, State Aid Project 20.47, Monroe Co., 16,144 cu.yd. earth and 216 cu.yd. rock excav., 130.4 cu.yd. Class B and 1.2 cu.yd. Class C concrete masonry, etc., $14,413; 2.38 mi. state road from Paris westward, State Aid Project 20.86, Monroe Co., 15,260 cu.yd. earth and 10 cu. yd. rock excav., 2,702 cu.yd. borrow, 170.3 cu.yd. Class B and 7.4 cu.yd. Class C concrete masonry, etc., $15,357; 2.47 mi. state road from Luray westward, State Aid Project 20 .0, Clark Co., 27,393 cu.yd. earth and 10 cu.yd. rock excav., 1,550 cu.yd. borrow, 136.2 cu.yd. Class B and 5.6 cu.yd Class C concrete masonry, etc., $19,443; 2.25 mi. state road from Linn Creek northeast and southwest, State Aid Project 20.81 Camden Co., 17,489 cu.yd. earth and 2,458 cu.yd. rock excav., 152 cu.yd. borrow, 130.2 cu.yd. Class B and 1.6 cu.yd Class C concrete masonry, etc., $28,486. A. Graham, state highway engr.

Mo., Clinton—Henry Co. having plans prepared improving 4 mi. Clinton-Deepwater Rd., 2 mi. with concrete and 2 mi. with Joplin chat. About $60,000. T. Parks, Clinton, engr.

Tex., Paris—Lamar Co. had plans prepared constructing 4.5 mi. Highway 5, extension of Federal Aid Project 38, 16 ft. wide. About $164,000. W. M. Fooshee, Paris, con. engr.

Okla., Beggs—City, c/o R. Willett, clk., having plans prepared surfacing various streets, asphalt on concrete base. About $96,000. Hughes Eng. Co., Bank of Commerce Bldg., Tulsa, engrs.

Utah, Salt Lake City—City having plans prepared curbing and guttering North Bench Dist. About $300,000. S. Q. Cannon, city engr.

Ont., Hamilton—City having plans prepared paving York St. from Queen to James Sts., involving 25,000 sq.yd. asphalt on concrete base. About $110,000. E. R. Gray, city engr.

Ont., Toronto—York Twp. soon receives bids building 275,000 to 300,000 sq.yd. concrete sidewalks on Durie and Jane Sts., Dynevor, Wolverleigh, Mossom, and Rushton Rds., Milverton, Glebeholme and Strathmore Blvds., Amherst, Arnold, Branstone, Chryessa, Connor, Franklin, Frater, Glenholme, Guestholme, Harvie, Holborne Mildred, McMichael, Nairn, Robina, Rutherford and Sannmon Aves. About $92,945. F. Barber, 40 Jarvis St., engr.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 14, by E. Riegelmann, boro pres., Boro Hall, regulating, curbing and laying sidewalks on Malta St., etc.; fencing lots on north side of McDonough St., etc.; regulating and paving Moultrie St. and Ave. Y, granite; regulating and curbing, etc., Hooper St., 16th and Metropolitan Aves.; resurfacing Chauncy St., etc., asphalt. About $25,000.

N. Y., New York—Until Sept. 16, by H. Bruckner, pres. Bronx Boro, repaving East Tremont Ave. from Bronx River to Morris Park Ave., redressed granite block on concrete foundation; paving Fox St. from Leggett to Longwood Aves., sheet asphalt on concrete foundation; regulating and grading, etc., Matthews Ave. from Pelham Parkway S. to Lydig Ave.; building sewers in Aqueduct Ave. W. between West 192nd to West 190th Sts.

N. Y., S. I. St. George—Until Sept. 14, by C. D. Van Name, pres. Richmond Boro, Boro Hall, constructing concrete sidewalks on Fairview Ave. from Richmond Turnpike to Potter Ave., Myrtle Ave. from Bway. to Elizabeth St., Elizabeth St. from Delafield to Forest Ave., Oakwood Ave. from Forest Ave. to Revere St., Caroline St. from Gary Ave. to end of street, Simonson Ave. from Richmond Terrace to railroad tracks, Simonson Ave. from Staten Island Rapid Transit R.R. tracks to Washington Ave.

Pa., Harrisonburg—Until Oct. 3, by Police Jury of Catahoula Parish, Courthouse, building 11 mi. Harrisonburg-Jonesville Highway, 16 mi. Harrisonburg-Jena Highway, 13 mi. Harrisonburg-Winnsboro Highway, 18 mi. Harrisonburg-Columbia Highway, 19 mi. Winnsboro-Clayton Highway. J. K. McGee, secy.

Maryland—Until Sept. 13 by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving 1.83 mi. highway from St. Anthony to Motters Sta., Frederick Co., concrete Constr. F40. J. N. Mackall, chn.; advertised in this issue.

North Carolina—Until Sept. 20, by State Highway Dept., at div. office Asheville, clearing, grubbing, grading, draining and surfacing 10.33 mi. State Aid Project 534, Cherokee Co., involving 20 acres clearing and grubbing, 96,000 cu.yd. common and 12,000 cu.yd. rock excav., 3,470 ft. corrugated metal or concrete pipe, 24,215 cu.yd. gravel surface, 1,936 cu.yd. rubble masonry, 341 cu.yd. Class A concrete, 34,775 lb. reinforcing steel, etc., about $85,000; 12.37 mi. State Project 548, Clay Co., involving 11 acres clearing and grubbing, 100,600 cu.yd. common and 18,400 cu.yd. solid rock excav., 4,818 ft. corrugated metal or concrete pipe, 29,020 cu.yd. topsoil, and 457 cu.yd. rubble masonry, $82,000; 13.8 mi. State Project 557, Madison and Yancey Counties, involving 7 acres clearing and grubbing, 156,850 cu.yd. common and 20,140 cu.yd. rock excav., 7,436 ft. 18-30 in. corrugated metal pipe, 1,240 cu.yd. rubble masonry, 128,750 sq.yd. water bound macadam, etc., $245,000; 13 mi. State Project 545, Graham Co., involving 40 acres clearing and grubbing, 66,600 cu.yd. common and 125,000 cu.yd. rock excav., 6,108 ft. corrugated metal pipe, 20,950 cu.yd. topsoil, 1,828 cu.yd. rubble masonry, 290 cu.yd. Class A and 55 cu.yd. Class B concrete, 27,430 lb. reinforcing steel, etc., $200,000. C. M. Upham, Raleigh, state highway engr.

S. C., Lexington—Until Sept. 20, by Lexington Co., grading and surfacing 9.86 mi.

Streets and **Roads (Continued)**

Charleston-Columbia Highway, involving 64,271 cu.yd. common excav. and 19,347 cu.-yd. sand clay surfacing. G. C. Steele, co. superv.

Alabama—Until Sept. 20, by W. S. Keller, state highway engr., Montgomery, grading, draining and gravel surfacing 17.4 mi. Ashland-Goodwater Rd., between Ashland and Tallapoosa Co. line, involving 24.1 acres clearing and grubbing, 122,567 cu.yd. common and 12,027 cu.yd. solid rock excav., 2,557.5 lin.ft. 18-30 in. pipe, 519 cu.yd. Class B, 1,592 cu.yd. Class A and 7.63 cu.yd. Class C concrete, 187,459 lb. reinforcing steel, etc.; grading, draining and surfacing with 2½ in. bituminous macadam 9.69 mi. Gadsden-Ashville Rd., between Gadsden and Etowah Co. line, involving 96,000 cu.yd. common and 4,000 cu.yd. solid rock excav., 35 acres clearing and grubbing, 20,213 cu. yd. slag base, 91,054 sq.yd. 2½ in. bituminous macadam, 850 cu.yd. Class A, 35 cu. yd. Class C and 30 cu.yd. Class B concrete, 70,000 lb. reinforcing steel, 260 lin.ft. 15-24 in. pipe, etc.

La., Amite—Until Sept. 27, by R. R. Reid, chn. Supervising Bd. Rd. Dist. 5, Tangipahoa Parish, building 3.11 mi. Amite West Rd. J. M. Fourmy, Hammond, parish highway engr.

Ky., Danville—Until Sept. 20, by W. O. McIntyre, mayor, constructing 35,000 sq.yd. sheet asphalt pavement. S. F. Crecelius, civil engr.; advertised in this issue.

Mich., Royal Oak—Until Sept. 12, by P. H. Beauvais, city mgr., shaping, grading, paving, curbing and guttering East 4th St. and South Washington Ave., concrete. About $35,000.

Ill., Carlyle—Until Sept. 12, by Superintendent of Highways, Clinton Co., paving Carlyle-Keysport Rd., involving 6,984.33 sq. yd. concrete pavement, 72-12 cu.yd. Class A rein.-con. for bridges and culverts. About $50,000. B. Tiffsmeyer, Carlyle, engr.

Ill., Watseka—Until Sept. 16, by Clerk Iroquois Co., constructing 3.59 mi. of 10 ft. concrete road. B. Jordan, 104 North 3rd St., co. supt. highways. Noted June 9.

Wisconsin—Until Sept. 14, by State Highway Dept., Div. Office 9, Teller Bldg., Lancaster, grading and surfacing 8.17 mi. The Lake to River Rd., from Dodgeville easterly on State Trunk Highway 19, Federal Aid Project 34, Iowa Co., involving 9,000 cu.yd. 20 ft. featheredge mine trailings surfacing, 8.18 mi. from end Project 34 easterly to county line, Federal Aid 140, Iowa Co., 11,400 cu.yd. 26 ft. featheredge mine trailings surfacing; 4.26 mi. The Dodgeville-Mineral Point Rd., Federal Aid Project 180 (Sta. 96-326, Lowa Co., 9.1 acres clearing and grubbing, 14,127 cu.yd. earth excav., 2,725 cu.yd. loose rock and 1,800 cu.yd. solid rock excv., 369.21 cu.yd. Class A concrete in culverts, 2.7 mi. Hazel-Green-Dubuque Rd., Federal Aid Project 210, Grant Co., 18,676 cu.yd. earth excav., 1,143 cu.yd. borrow, 750 cu.yd. solid rock, 130 cu.yd. Class A concrete in culverts, 60 ft. pony truss steel span bridge, 37,090 lb. structural steel, 22.5 cu.yd. Class D concrete (floor), 231 cu.yd. Class A concrete, 133 sq.yd. bituminous wearing surface; building Sunfish Bridge on Sandy Hook Rd., Federal Aid Project 209, Grant Co., work involves raising present 60 ft. plate girder span, building new bridge seats on present abutments and lowering present span to rest on new bridge seats.

Ia., Onawa—Until Sept. 15, by Auditor Monona Co., grading 5.1 mi. Turin-Soldier Rd., northwest of Soldier, 5.64 mi. Sioux City-Dennison Cut-off, from Crawford Co. Line, west and north, 26 ft. wide, involving 136,326 cu.yd. earth excav., 1,525 lin. ft. 8 in. tile, 200 ft. 12 in. and 6 tile intakes. Iowa Highway Comn., div. office, Ames, engrs.

Ia., Rock Rapids—Until Sept. 3, by Auditor Lyon Co., grading and draining 16.18 mi. Primary Rd. Project 85, involving 148,733 cu.yd. earth excav., and 82,933 station yds. overhaul. Iowa Highway Comn., div. office, Ames, engrs.

Minnesota—Until Sept. 20, by State Highway Dept., 920 Guardian Life Bldg., St. Paul, improving 6 mi. State Highway 10, 24 ft. wide, Le Sueur Co., involving 125,000 cu.yd. excav., etc. About $30,000. C. M. Babcock, state highway engr.

Minn., Hastings—Until Sept. 15, by R. W. Downs, and Dakota Co., grading and paving about 1.5 mi. Lyndale Ave. Rd., involving 2,640 cu.yd. excav., 1,000 lin.ft. 6 in. drain tile, 10,482 sq.yd. paving, etc. About $40,000. C. L. Methven, Hastings, engr. Noted July 28.

Kan., Emporia—Until Sept. 30, by Bd. Comrs. Lyons Co., grading and draining 10.6 mi. Santa Fe Trail, Sects. A and D, Federal Aid Project 30, 18 ft. wide. About $400,000. W. S. Ruggles, co. engr. Noted Sept. 1.

Kan., Belleville—Until Oct. 7, by Comrs. Republic Co., grading, draining and building bridges on 8.6 mi. Belleville-Rydal-Scandia Rd., 24 ft. wide, Federal Aid Project 92. About $60,000. J. O. Gunnels, Belleville, engr.

Kan., Leavenworth—Until Oct. 11, by Comrs. Leavenworth Co., constructing culverts and concrete slab on 0.493 mi. Fort to Fort Highway, Federal Aid Project 93, about $25,000; grading, draining and building rein.-con. slab on 2.19 mi. Fort to Fort Highway, Federal Aid Project 94 A and B, $125,000. L. C. Clark, Leavenworth, engr.

Kan. Troy—Until Sept. 30, by Comrs. Doniphan Co., grading, draining and building concrete slab on 2.5 mi. Pikes Peak Highway, 18 ft. wide, Federal Aid Project 87. Former bids rejected. J. D. Parker, Troy, engr. Noted Aug. 4.

Mo., Maplewood—Until Sept. 28, by G. D. Komar, city clk., paving Lindover and Typher Places. About $25,000. A. H. Beard, Chemical Bldg., St. Louis, engr. Noted July 7.

Mo., St. Louis—Until Sept. 20, by City, improving Lettings 1237-1238, brick and asphalt on concrete base. About $35,000. E. R. Kinsey, pres. Pub. Wks. Engineer's name withheld.

Ore., Klamath Falls—Until Oct. 3, by city improving various streets, bitulithic, concrete, Willite or asphaltic concrete. D. J. Zumwalt, city engr.; adv. in this issue.

California—Until Sept. 19, by State Highway Comn., 515 Forum Bldg., Sacramento, paving with asphalt concrete 6 mi. highway between southern boundary and Ceres, Stanislaus Co., 4.3 mi. highway between Perry and Morgan Hill, Santa Clara Co., 4.2 mi. highway between Delhi and northern boundary, Merced Co., 5 mi. highway between King City and south side Salisas River, Monterey Co.; paving with asphalt concrete and widening with cement concrete 3.2 mi. highway between Canada de La Posta and Gaviota, Santa Barbara Co.; paving with cement concrete 1.7 mi. highway between Gilroy and Carnadero, Santa Clara Co.; paving 4.8 mi. highway between Fullerton and northern boundary, Orange Co., 2.8 mi. with cement concrete and 2 mi. with asphalt concrete and widened with cement concrete. A. B. Fletcher, state highway engr.

Nova Scotia—Until Sept. 10, by Provincial Highway Bd., Halifax, building 5 mi. water bound gravel macadam highway from Amherst towards Maccan. About $27,500. W. A. Hendry, Halifax, ch. engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Connecticut—State Highway Dept., 240 Farmington Ave., Hartford, let contract paving 9540 ft. Norwalk-Darien highway in Norwalk, 18 ft. wide, cement concrete, to Nat. Constr. Co., 721 Main St., Hartford. Cost between $75,000 and $80,000.

N. Y., Brooklyn—E. Riegelmann, boro pres. Boro Hall, opened bids Aug. 31, regulating, curbing and paving (1) Bay 22nd St., (2) Chester St., (3) Sheridan Ave.; regulating and paving (4) East 13th St., (5) East New York Ave., (6) Sheridan Ave., (7) 75th St.; regulating and repaving (8) 6th St., all above with permanent asphalt pavement on 6-in. concrete foundation, from Sicilian Asphalt Paving Co., 41 Park Row, New York City, (1) $6,166, (2) $8,689, (3) $12,144, (4) $11,035, (5) $29,772, (6) $4,932, (7) $15,473, (8) $4,120; Borough Asphalt Co., 1301 Metropolitan Ave., (1) $6,356, (2) $8,784, (3) $12,047, (4) $10,713, (5) $38,573, (6) $4,889, (7) $15,721, (8) $4,427; Cranford Co., 52 9th St., (1) $7,105, (2) $9,240, (3) $13,624, (4) $11,521, (5) $38,997, (6) $5,167, (7) $15,898, (8) $4,977; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (3) $11,070, (4) $10,317, (8) $4,536; Cleveland Trinidad Paving Co., Flushing, L. I., (5) $36,489. Noted Aug. 25.

★N. Y., Long Island City—M. E. Connolly pres. Queens Boro, let contract regulating, grading and paving Rockaway Blvd. from Conduit to New York Ave., 4th Ward, to Kennedy & Smith, 93 Amity St., Flushing, $60,814. Noted Sept. 1.

★N. Y., New York—H. Bruckner, pres. Bronx Boro, let contracts regulating, grading and setting curbs, etc., (1) St. Lawrence Ave. from Westchester Ave. to point 25 ft. north of Watson Ave., (2) Fieldstone Rd. from West 261st to 262nd Sts., to Spadaro Contg. Co., 827 East 217th St., (1) $16,558, (2) $2,885; building sewers in West Kingsbridge Rd. between existing sewer west of Webb Ave. and in Webb Ave. beween Kingsbridge Rd., etc., to Norton Eng. & Contg. Co., 510 West 149th St., $41,065. Noted Aug. 25.

★N. Y., S. I. St. George—C. D. Van Name, pres. Richmond Boro, Boro Hall, let contract repairing Richmond Rd., etc., granite block, to Lee-Decker & Sax, 114 East 52nd St., New York City, $69,116. Noted Sept. 1.

★New Jersey—State Highway Dept., Broad Street Bank Bldg., Trenton, let contracts, paving Route 1, Sect. 9, Milton Ave., Rahway, to Rahway-Linden Boundary Line, Rahway, Union Co., to Utility Constr. Co., 5 Spring St., New Brunswick, 91.5% engineer's estimate ($172,141); Route 1, Sect. 10, from Rahway-Linden Boundary Line to north of Roselle St., Roselle, Union Co., C. H. Winans, 207 Broad St., Elizabeth 90.9% ($176,624); Route 1, Sect. 11, from north of Roselle St., Roselle, to Elizabeth City Line, Union Co., J. S. Geiger Sons, 83 Hartford St., Newark, 89.7% ($187,565); Route 1, Sect. 7, through Hamilton Sq., Mercer Co., D. Klockner, Mercerville Rd., Trenton, 89% ($56,401); Route 9, Sect. 4, through Dunellen, Middlesex Co., Fallon & Kenah, 212 David St., South Amboy, 86% ($113,005). Noted Aug. 18.

★N. J., Hoboken—J. Payon, chn. Blvd. Comn., let contract paving 2½ mi. Park Ave., 50 ft. wide, granite block, to E. Flaherty, 76 Montgomery St., Jersey City, at 114.9% of engineer's estimate ($75,000).

★N. J., Jersey City—F. Dolan, city clk., let contract paving Halladay St. between Bramhall Ave. and tracks of Central R R. of New Jersey, sheet asphalt on stone base, to W. T. S. Critchfield, 14th St., Hoboken, 93½ per cent of engineers estimate ($29,615). Noted Sept. 1.

Pa., Phila.—City let contracts to Barber Asphalt Paving Co., Land Title Bldg., for paving with asphalt Pearl St., at $5,682, Upland St., $11,271, Lawrence St. from Olney to Chew Aves., $13,686, Lawrence St. from Ruscomb to Rockland St., $4,873, Limekiln Pike from Haines St. to Andrews Ave., $10,451, Limekiln Pike from Godfrey Ave. to Chelten Ave., $16,697, Duncannon Ave., $12,667, 7th St., $17,583, Wentz St., $6,487, Tilton St., $4,064 Stenton Ave., $14,712, Monastery Ave., $11,478, Lindley Ave., $4,095, A St., $2,145, 5th St., $869, Moyamensing Ave. and Bigler St., $16,054, Prentice St. $8,764, Bancroft, Carlisle, Christian Hicks, Mole, Pierce, Rosewood and Watkins Sts., $30,907, repaving Chester Ave., $107,258; to Union Paving Co., 34th and Spruce Sts., repaving Park Ave., 1st and Greene Sts., $23,036, Birch, Hancock, Rutledge, Stella and 8th Sts., $28,232, Fernon, Greenwich, Mountain, Siegel, Tree, Watkins, Winton and Wolf Sts., $23,778, York Rd., 3rd, 9th, 10th, 13th, 15th and 41st Sts., $60,152, Lombard St., from Delaware Ave. to Broad St., $75,350, Lombard St. from Broad to 27th St., $53,439, Girard Ave., $53,590, improving and grading Roosevelt Blvd., $161,305; to Fish Rutherford, Inc., Real Estate Trust Bldg., repaving 9th St., $19,588, repaving between car tracks Poplar St., Girard, South College and West College Aves., $70,908, repaving with redressed granite block Columbia Ave., $43,114, improving and grading Cobbs Creek Highway and Beaumont Ave., $151,837; to T. L. Flannigan, 1240 East Montgomery Ave., repaving 15th St., $65,303, Frankford Ave., from Kensington to Church Aves., $34,318, Frankford Ave., from Wakeling to Bridge Sts., $33,912, Peire St., $39,325; to United Paving Co., Real Estate Trust Bldg., improving Snyder Ave. with wood block and redressed granite block between car tracks, $14,974, repaving with granite block Wildey St., $8,819; to T. Connor, 3329 North 5th St., grading 10th St., Lawnton and 65th Aves., $13,057; to Ryan Constr. Co., Real Estate Trust Bldg., repaving 65th St., $80,708; to R. F. Reilly, 50th and City Aves., grading Columbia and Montgomery Aves., $5,532; to R. B. Wenner, 3649 Filbert St., grading Columbia Ave., Dunlap, Nassau, Oxford and 57th Sts., $169,005; to Certronni & Mezzola, Lincoln Bldg., repaving 2nd St., $46,399; to Cunningham & Murray, 1345 Arch St., repaving Sansom St., $16,741; to J. Devlin,

Streets and Roads (Continued)

Jr., Lincoln Bldg., repaving between railway tracks Spruce St., $19,519. Noted Aug. 25.

★**Pa., Pittsburgh**—City let contracts to Booth & Flinn, Ltd., 1942 Forbes St., grading, curbing and paving Saranac Ave., cost $45,119, Shiras Ave., $27,191, Mackinaw Ave., $22,689; J. H. McQuade Sons Co., Bakewell, Bldg., Carson St., $38,960. Noted Sept. 1.

★**D. C., Wash.**—Dist. Comrs., 509 Dist. Bldg., let following contracts grading, Connecticut Ave., to G. Hyman, 1116 Morse St., N. E.; 17th and Monroe Sts., E. G. Gummel, 300 Rhode Island Ave., N. W.; 17th St., S. E., Kalsman St., Vista, Dorsett and Carolina Places, W. F. Brenizer Co., 101 New York Ave., N. E.; Ohio Ave., G. B. Mullin, 1296 Upshur St. Noted Aug. 25.

★**W. Va., Huntington**—City let contract paving 4th Ave. from 24th to 28th Sts., to A. Trainer, 2025-4th Ave., $66,146.

North Carolina—State Highway Dept., at div. office Elkin, rejected bids opened Aug. 22, clearing, grubbing, grading, draining, and surfacing 7.16 mi. State Project 543, Stokes Co. About $35,000. Work will be readvertised. C. M. Upham, Raleigh, state highway engr. Noted Aug. 11.

★**N. C., Charlotte**—Meckenburg Co. let contract surfacing 4 mi. Lawyers Rd., asphalt on concrete base, to Blythe & Blythe, Charlotte. About $105,000.

★**Alabama**—State Highway Comn., Montgomery, let contract draining and surfacing with water bound macadam 6 mi. Scottsboro-Huntsville Rd., between Woodville and Limrock, to Scottsboro Constr. Co., Scottsboro, $42,537. Noted July 21.

★**Louisiana**—State Highway Dept., New Orleans, let contracts grading and draining 25.42 mi. Houma-Morgan Highway, Terrebonne Parish, to A. D. Lambert Constr. Co., Rapids Hotel, Alexandria, $34,189; graveling 22.35 mi. Opelousas-Marksville Highway, St. Landry Parish, to J. C. Wimberly, New Iberia, $95,984. Noted Aug. 25.

★**Louisiana**—State Highway Dept., New Orleans, let contract building 4 mi. Camp Beauregard-Grant Highway, Rapids Parish, to Harvey & Frith, LeCompte. $15,270. Noted Aug. 18.

★**La., Amite**—Police Jury of Tangipahoa Parish let contracts constructing gravel road including bridges in Rd. Dist. 1, Ward 7, 16.2 mi. to Womack, Kent & Blomyer, Inc., Kentwood, $154,512; 15.8 mi. to Peterman & Loustalot, Franklin, $152,434.

★**O., Canton**—Stark Co. let contract paving 4,800 ft. 11th St., S. W., from Camden to Maryland Aves., S. W., 36 ft. wide, with asphalt, to Garaux Bros. Co., Court Ave. and Reynolds Pl., $138,198; 1,500 ft. Correll Ave., N. E., from 2d to 4th Sts., and from 6th to 9th Sts., 30 ft. wide, brick, to Burd Constr. Co., 1043 Spring Ave., $34,433.

★**O., Cleveland**—City let contract paving West 88th St., to Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., $13,546; Arlington Ave., to Burnett & Hathaway, Society for Savings Bldg., $15,303. Work involves 44,800 sq.ft. vitr. brick, on 6 in. concrete base and 2,300 cu.yd. earth excav., etc.

O., Cleveland—City opened bids Aug. 24, paving (1) West 15th Pl. from Holmden to Brainard Ave., (2) Amesbury Ave., (3) East 124th St. from Woodland to Buckingham Aves., involving 3,740 sq.ft. vitr. brick, on 6 in. concrete base, and 1,750 cu.yd. earth excav., etc., (4) East 10th St. from Union Ave. to Aetna Rd., (5) East 111th St., from Miles Ave. to Charlotte Rd., 54,900 sq.ft. vitr. brick, on 6 in. concrete base, and 2,790 cu.yd. earth excav., (6) East 133rd St. from Caine to Beachwood Aves., (7) Shale Ave. from Woodhill Ave. to East 110th St., (8) Oakwood Ave. from East 71st to East 72nd St., 67,550 sq.ft. vitr. brick on 6 in. concrete base, 723 sq.ft. asphalt, and 5,350 cu.yd. earth excav.; repaving (9) Superior Ave. from East 55th to East 79th Sts., 19,500 sq.yd. asphalt, etc., from Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., (1) $16,281; J. C. Fisher, 16024 Lorain Rd., (1) $17,112; Gould & Maybach, 823 East 150th St., (2) $4,458; Riley Bros., The Arcade, (2) $5,166, (8) $5,521; A. M. Pejsa, 3031 Derbyshire Rd., (3) $4,241, (4) $28,071, (7) $38,628; Garland Bros., 740 Oakwood Rd., (3) $4,317, (8) $5,694; Baldwin Bros., 4500 Euclid Ave., (4) $28,229, (5) $6,836, (6) $12,887, Enterprise Paving and Constr. Co., 8444 Bway., (5) $6,460, (6) $12,350, Burnett & Hathaway, Society for Savings Bldg., (7) $37,699; Cleveland Trinidad Paving Co., The Arcade, (9) $72,936. Noted Aug. 18.

O., Cleveland—City received bids paving (1) East 73rd St. from Grand to Wagner Aves., (2) Bosworth Rd. and Parkhill Drive from Lorain Ave. to West Blvd., (3) East 135th St. from Kinsman Rd. to Abell Ave., (4) Vineyard Ave. from Warner Rd. to city limits, (5) Hyde Ave. from West 41st Sts., (6) Hyde Ave. from West 38th St. to Fulton Rd., (7) Torwood Ave. from West 43rd to West 44th Sts., from Rieley Bros., The Arcade, (1) $8,575; Garland Bros., 7040 Oakwood Ave., (1) $9,015; Burnett & Hathaway Society for Savings Bldg., (2) brick, $81,414; Cleveland Trinidad Paving Co., The Arcade, (2) asphalt, $71,850, (7) asphalt, $4,452; A. M. Pejsa, 3161 Darbyshire Rd., (3) $37,696; J. C. Fischer, 16024 Lorain Rd., (4) $16,670, (5) $14,275, (6) $10,369; Enterprise Paving & Constr. Co., 8444 Bway., (4) $17,554; Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., (5) $13,726, (6) $9,858; W. E. McHugh, 3855 West 44th St., (7) brick, $3,392. Noted Aug. 18.

O., Cleveland—Comrs. Cuyahoga Co. received bids grading, curbing and paving West Madison Ave., involving 48,000 sq.yd. vitr. brick, 12,610 cu.yd. 6 in. concrete base, 18,000 cu.yd. earth excav. and 65,000 lb. reinforcing steel, etc., from Williams & Little Co., 3365 Euclid Heights Blvd., Cleveland Heights, $274,021; Baldwin Bros., 4500 Euclid Ave., $304,298; W. E. McHugh, West 44th St., $313,406.

★**O., Oakwood** (Dayton P. O.)—Comrs. Montgomery Co. (Dayton) let contract paving Far Hills Ave., concrete, to Williams & Little, c/o Co. Comrs., Court House, Dayton. About $23,000. Noted Aug. 25.

★**Mich., Bessemer**—State Highway Dept. at office Bd. Rd. Comrs. Gogebic Co., let contract grading, draining and surfacing 6.738 mi. State Trunk Line Rd. 12-26, to S. J. Groves & Sons Co., Duluth, Minn., Work involves 29,027 cu.yd. earth excav., $0.60, 121.6 cu.yd. 1:2:4 concrete, $24.62, 7 cu.yd. 1:3:6 concrete, $22.63 250 sq.yd. gravel $0.74. Noted Aug. 18.

★**Mich., Detroit**—City let contracts to R. J. Powelson Co., 6415 Iroquois Ave., paving alleys 1302, cost $3,443, Alley 1303, $3,659, Alley 1304, $1,447, Alley 1305, $1,671, Alley 1306, $2,633, Alley 1307, $2,803, Alley 1309, $1,814, Alley 1312 $4,582, Alley 1313, $2,694 Alley 1315, $2,362, Alley 1321, $1,565.

Reading Corp., 413 West Fort St., Alley 1308, $1,724.

A. F. Lester, 309 Sun Bldg., Alley 1310, $4,982, Alley 1311, $4,236, Alley 1314, $3,652, Alley 1317, $4,584, Alley 1320, $4,146.

F. H. Davis, 1833 Penobscot Bldg., Alley 1316, $1,749, Alley 1318, $3,067.

T. E. Currie, 20 McGraw Bldg., Alley 1287, $5,973.

Otis Cement Constr. Co., 806 Hammond Bldg., Alley 1288, $5,706, Alley 1289, $5,176, Alley 1290, $5,651, Alley 1291, $5,441, Alley 1292, $5,061, Alley 1293, $4,469, Alley 1294, $3,655, Alley 1295, $3,403, Alley 1296, $2,475, Alley 1297, $5,154, Alley 1298, $5,087, Alley 1299, $2,711, Alley 1300, $3,533, Alley 1301, $2,898.

Mich., Detroit—City received bids grading, shaping and paving with sheet asphalt on 8 in. concrete base, (1) Baker St., and following avenues, (2) Albert, (3) Canfield, (4) Centerline, (5) Dwight, (6) Ferry, (7) Gibson, (8) Linwood, (9) Marcus, (10) Tyler, (11) Waverly, (12) Dexter, also alleys, (13) 1322, (14) 1323, (15) 1324, (16) 1325, (17) 1326, (18) 1327, (19) 1328, 20) 1329, (21) 1330, (22) 1331, (23) 1332, (24) 1333, (25) 1334, (26) 1335, (27) 1336, (28) 1337, (29) 1338, (30) 1339, from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $13,551, (2) $11,955, (3) $28,637, (4) $31,821, (5) $2,332, (6) $7,301, (7) $10,954, (8) $22,494, (9) $17,933, (10) $23,849, (11) $23,480, (12) $90,420.

Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $13,796, (2) $12,109, (3) $29,042, (4) $32,588, (5) $2,477, (6) $7,503, (7) $11,422, (8) $22,272, (9) $18,303, (10) $23,746, (11) $23,386, (12) $91,352.

A. F. Lester, 309 Sun Bldg., (13) $4,706, (16) $5,430, (18) $1,860, (19) $4,973, (21) $3,206, (25) $2,218.

F. H. Davis Co., 1838 Penobscot Bldg., (13) $4,790, (17) $4,992, (18) $1,984, (20) $1,862, (21) $3,358, (24) $2,384, (25) $2,279, (27) $2,967, (30) $2,557.

Reading Corp., 413 West Fort St., (13) $4,619, (15) $1,408, (16) $5,421, (18) $2,000, (19) $4,964, (22) $4,206, (25) $2,316, (26) $4,136, (29) $2,977.

Delisle & Cooper, 402 Ford Bldg., (14) $1,625, (17) $4,901, (20) $1,805, (22) $4,270, (23) $3,515, (24) $2,299, (26) $4,147, (27) $2,831, (28) $4,123, (29) $3,029, (30) $2,833.

F. Porath, Jr., 305 Free Press Bldg., (14) $1,618, (15) $1,308, (23) $3,624.

G. Nunn 6409 3d Ave., (14) $1,597, (15) $1,322, (17) $4,799, (20) $1,754, (22) $4,287, (24) $2,297, (26) $4,089, (27) $2,829, (28) $4,235, (29) $3,044, (30) $2,831.

T. C. Currie, 20 McGraw Bldg., (16) $5,402, (19) $4,949, (21) $3,206.

Otis Cement Constr. Co., 806 Hammond Bldg., (28) $4,120.

R. J. Powelson, 6415 Iroquois Ave., (23) $3,694.

★**Mich., Ontonagon**—State Highway Dept. at office Bd. Rd. Comrs. let contract grading, draining and surfacing 4.893 mi. State Trunk Line Rd. 26.6, Sect. A, to C. I. Anderson, Ewen. Work involves 14,865 cu.yd. excav., $0.64, 104.6 cu.yd. 1:2:4 concrete, $32, 67.1 cu.yd. 1:3:6 concrete, $28, 45, 914 sq.yd. stone gravel, $0.812. Noted Aug. 18.

★**Mich., Wyandotte**—City let contract paving and curbing North Line Rd. from Biddle Ave., in Village of Ford, to 10th St., here, involving 13,256 sq.yd. 8 in. rein.-con., to Rice Constr. Co., Wyandotte, $46,981.

★**Ill., Harvey**—Bd. Pub. Wks. let contract paving various alleys, vitr. brick on concrete base, to Penger & Black, Blue Island. About $25,000.

★**Ill., Joliet**—City let contract paving Young Ave. and Clay St., asphalt, with concrete curb and gutters, to J. V. McCarthy, Joliet, $45,342. Noted Sept. 1.

★**Ill., Winnetka**—City let contract paving various streets, vitr. brick on concrete base, to M. Hoffman Constr. Co., Fletcher Savings and Trust Bldg., Indianapolis, Ind. About $30,000.

Wis., Janesville—City received bids Sept. 1, paving Glenn and Hickory Sts., 1 course rein.-con., from J. Cape & Sons, Water St., Racine, $29,518; Clark, Racine, Tremont, Carrington and Blackhawk Sts., from Grand-Graham Co., Freeport, Ill., $45,726.

★**Wis., Shorewood (Milwaukee P. O.)**—Elmwood Co. let contract for 18,000 sq.yd. concrete pavement and 56,000 sq.ft. cement walks in Elmwood subdivision, to Schoonmaker Constr. Co., State St., Wauwatosa. About $38,000.

★**Ia., Clinton**—City let contract paving various streets, involving 17,370 sq.yd. on 5 in. concrete base, to T. Carey & Sons, 308 Weston Bldg., $87,179.

★**Ia., Iowa City**—City let contract paving various streets, brick and bitulithic, to W. Horrabin, 15 East College St., $8,000 for brick paving, $57,000 for bitulithic.

★**Minn., Anoka**—Anoka Co. let contract clearing, grading, etc., State Rd. 3, Job 2002, to T. J. Frederick, 310 Globe Bldg., Minneapolis, $32,668. Noted Aug. 4.

★**Minn., Faribault**—Rice Co. let contract grading, draining and building bridges and culverts on 15 mi. West Cannon City Rd., grading, to Petrie & Merrill, Anoka, $41,690; installing pipe, to Isle Constr. Co., Isle, $2,600; material, to Klauer Mfg. Co., Dubuque, Ia., $3,382; bridges and culverts, to H. R. Perkins Co., Faribault, $4,564.

★**Minn., Mankato**—Blue Earth Co. let contract improving Job 2106 Sect. B, State Highway 1, to J. Brown Constr. Co., Madison Lake, about $19,000 on contract, and balance of work on cost plus basis. Noted July 28.

★**Minn., Rochester**—Olmsted Co. let following contract improving State Aid Job 2103, involving 49,000 cu.yd. earth, 3,900 cu.yd. loose rock and 500 cu.yd. solid rock excav., 40,000 cu.yd. overhaul, 3,000 lin. ft. guard rail, 640 ft. 12-18 in. portable culverts, 5 standard w type culverts and 140 cu.yd. concrete, grading, to White, Brown & Leahy, Great Falls, Mont. $20,467; culvert material, to Botsford Lumber Co., Rochester, $1,052; box culverts, to F. Chase, Simpson, $3,779. Noted July 28.

★**Kan., Wellington**—Sumner Co. let contract for (a) grading, (b) culverts, (c) building bridges on 16.728 mi. Sect. J, K, L, M and R, Federal Aid Project 35, to List & Bagwell Constr. Co., Kansas City, Mo.,

Streets and Roads (Continued)

(a) $35,306; Maxwell Constr. Co., Columbus, (b) $36,398; Central Constr., Rosedale, (c) $15,359. Noted Aug. 18.

★**Missouri**—State Highway Dept., Bolivar, let contract building 4.94 mi. State Rd. from here eastward and westward, State Aid Project 20.71, Polk Co., to Miller Constr. Co., Springfield, at $24,663. Noted Sept. 1.

S. D., Watertown—City received bids paving about 11 blocks Maple St., N., and 3rd St., N.W., involving 16,000 sq.yd. paving, from C. H. Atkinson Paving Co., Watertown, $2.67 per sq.yd. rein.-con. Type A, $2.62 rein.-con. Type B, vibrolithic $3.15 and $3.30 asphaltic concrete, $4.29 vitr. brick and $5.17 creosoted wood block; Schreiber Eng. & Constr. Co., Watertown, $2.85 rein.con. Type A, $2.88 rein.-con. Type B vithrolithic. W. T. Cochrane, engr. Noted Aug. 11.

★**Mont., Great Falls**—City let contract paving 6 blocks between 6th and 12th Sts., to Two Miracle Co., 437 Ford Bldg., $57,393.

★**Okla., Bustow**—City let contract curbing, guttering and paving various streets, involving 22,000 cu.yd. brick, to Standard Paving Co., Tulsa, $127,875.

★**Colorado**—State Highway Dept., Denver, let contract paving with concrete 4½ mi. Denver-Bloomfield Rd., Federal Aid Project 133, Adams Co., to W. J. Cameron, Chamber Commerce Bldg., Denver, $137,335; 4½ mi. Denver-Broomfield Rd., Federal Aid Project 129, Adams Co., to Peterson, Shirley & Gunther, Woodmen of World Bldg., Omaha, Neb., $142,441. Noted Aug. 18.

★**Arizona**—State Highway Dept., Phoenix, let contract paving 3 mi. Phoenix-Tempe Highway, 2 in. bituminous surface on 4 in. asphaltic concrete base, to White & Miller, 127 North St. Andrews Pl., Los Angeles, Cal., $74,374.

★**Wash., Pe Ell**—City lét contract concrete paving Main St., et al. part of Ocean Beach Highway, 18 ft. wide, except 3 blocks in center of town which will be 60 ft. wide, to Albers & Son, Chehalis, $42,451.

★**Wash., Seattle**—King Co. let contract paving 2 mi. Permanent Highway 27, Auburn to Pierce Co. line, to Fiorito Bros., New York Blk. About $62,000. Noted Aug. 18.

★**California**—State Highway Comn., 515 Forum Bldg., Sacramento, let contract paving 9.5 mi. highway between Ignacio and Fairville, Marin and Sonoma Counties, to Grant Smith & Co., Flood Bldg., San Francisco; 2 mi. between San Jose Creek and Stony Creek, Santa Barbara Co., to C. H. Hudson, Marsh Strong Bldg., Los Angeles; 5.7 mi. between Rancho El Encino and Shoup Ave., Los Angeles Co., to J. G. Beckjord, Los Angeles. Noted Aug. 18.

Cal., Los Angeles—City received bids paving and laying curb and sidewalks on Western Ave. between Adams and Santa Barbara Aves., involving 336 lin.ft. cement curbing, 27 sq.ft. concrete gutter, 554 sq.ft. cement sidewalk, 311,877 sq.ft. grading, 311,877 sq.ft. 6 in concrete paving, etc., from G. H. Oswald, 366 East 58th St., $94,089; Wells and Bressler, California Bank Bldg., Santa Ana, $94,462; Tryon and Brain, Tajo Bldg., $102,327.

★**Cal., San Diego**—Common Council let contract paving 2,580 ft. Granada Ave. between Upas St. and University Ave., asphaltic concrete on 4-in. Portland cement concrete base, to Fairchild-Gilmore-Wilton Co., 14th and N Sts., $38,961. Noted Aug. 18.

★**Cal., Santa Barbara**—Santa Barbara Co. let contract paving 23 mi. Highway in Lompoc Rd. Dist., asphalt on concrete base, to Hunter & Richardson, 525 East Haley St., $485,536.

★**Ontario**—Provincial Government, Toronto, let contracts building 4 mi. macadam base, Contr. 446, to A. E. Jupp Constr. Co., 170 Berkeley St., Toronto, $35,000; earthwork, Contr. 145, to A. Cope & Son, 29 Albert St., Hamilton, $15,000; concrete culverts, Contr. 445, to R. J. Gough, c/o G. Hogarth, engr., Parliament Bldg., Toronto, $6,000; concrete culverts, Contr. 444, to G. Chenery, Division St., Oskawa, $6,000.

★**Ontario**—Provincial Government, Parliament Bldgs., Toronto, let contract building 3 mi. concrete pavements in Sandwich and Sandwich South Twps., to Johnson Bros., Ltd., Brantford. About $52,000.

★**Ontario** — Provincial Government, Toronto, let contract building 2½ mi. concrete pavement, Contr. 456, in Chatham Twp., to N. P. Godson, 30 Leopold St., Toronto. About $39,000.

★**Ont., Hamilton**—City will pave Rebecca St. from Hughson to Wellington Sts., involving 10,000 sq.yd. asphalt, 2,400 lin.ft. concrete curb and gutter, cost $42,500; also King St. from James to Bay Sts., involving 9,000 sq.yd. asphalt, $42,000. Work will be done by day labor, under supervision of Wks. Dept. E. R. Gray, city engr.

★**Ont., Tilburg**—Town let contract building concrete pavements on Main St. and Carlyle Ave., to Chick Contg. Co., McDougall St., Windsor. About $40,000.

★**Ont., Toronto**—City let contracts building sidewalks on Coxwell and Glebemount Aves., to Ramsay Contg. Co., 39 Indian Rd.; Cummings St. and Fairford Ave., to D. McKay & Co., 289 Ashdale Ave.; Gerrard St. and part of Danforth Ave., to A. Johnson, 35 Burgess Ave.; Davenport Rd. and part of Danforth Ave., to Grant Contg. Co., 50 Front St. E.; Greenwood Ave. and part of Danforth Ave., to J. Harrop, 1414 Davenport Rd.; part of Danforth Ave. to W. B. Hughes, 53 Victoria Park Ave.; Davenport Rd. and Durie St., to F. Angotti, 819 Clarens Ave.; Donlands Ave. and Ford St. to Britnell Contg. Co., Baxter St.; Fawcett Ave., Glenmount Park and Strathmore Blvd., to A. J. Penberth, 292 Booth Ave; Gilman and Glenlake Aves., to Natl. Contg. Co., 99 Garnock Ave.; Wolverleigh Blvd., to A. E. Jupp Constr. Co., 170 Berkeley St. Total cost $100,000.

★**Ont., Toronto**—York Twp. let contracts building concrete sidewalks in Brook and Windmere Aves., to Natl. Contg. Co., 9 Garnock Ave., $5,000; Mariposa Ave., to J. J. Ramsay 39 Indian Rd., $4,000; Teignmouth Ave., to D. McKay, 289 Ashdale Ave., $5,000; Windmere Ave., to E. Carliss, 18 Hanley St., $3,500; Gibson Ave., to Parkdale Concrete Constr. Co., 245 Garden Ave., $1,200; Gilbert Ave., to Britnell Contg. Co., Baxter St., $3,000; Coleridge and Fulton Aves., to A. Johnson, 35 Burgess Ave., $5,000; Westmount Ave., to F. Angotti, 819 St. Clarens Ave., $5,000; Mulberry Ave., to Grant Contg. Co., 50 Front St. E., $3,000; Woodbine Ave., to H. S. Walton, c/o F. Barber, engr., 40 Jarvis St., $6,000.

Industrial Works

PROPOSED WORK

Me., Gardner—Lockwood, Greene & Co., archts. and engrs., 60 Federal St., Boston, rejected bids building 3 story, brick and steel addition to shoe factory, for R. P. Hazzard Co., 421 Water St. About $60,000. Noted Aug. 4.

Mass., Northampton—F. Girard, King St., plans to build 1 story, 100 x 125 ft. brick, concrete and steel garage and service station on North St. Private plans.

Conn., Hartford—Fuller Brush Co., Inc., 74 Union Pl., plans to build 4 story, concrete, steel and brick factory, on Windsor Ave. About $250,000. Buck & Sheldon, Inc., 60 Prospect St., archts. and engrs.

Conn., Hartford—G. A. Zunner, archt., 182 High St., opens bids about Sept. 15, building 3 story, 95 x 100 ft. brick and steel garage, rein.-con. flooring, on Windsor Ave., for Dragat & Troubman, 340 Windsor Ave. About $100,000.

Pa., Phila.—Brighton Worsted Co., c/o F. Sloan, Tioga and D Sts., having plans prepared for 3 story, 32 x 55 ft. rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Tioga and D Sts. About $70,000. Private plans.

La., New Orleans — O. K. Storage & Transfer Co., Lotus Bldg., Memphis, Tenn., plans to build 5 to 7 story warehouse, on St. Charles Ave. and St. Mary Sts. About $100,000. Architect not selected.

La., New Orleans—Washington Ice Co., 611 Louisiana Ave., plans to build brick and steel plant, on Cadiz and Freret Sts. Cost between $125,000 and $150,000. P. J. Wingerten, 611 Louisiana Ave., ch. engr.

Mich., Cadillac—R. J. Teetor, Muskegon, having plans prepared by F. D. Chase, archt., 645 North Michigan Ave., Chicago, for 1 story, brick and steel foundry. About $50,000.

Mich., Detroit—Dept. Motor Transportation, c/o W. Helmboldt, supt., City Hall, plans to build 3 story, 200 x 350 ft. rein.-con., brick and steel garage and office building, rein.-con. flooring, concrete foundation on Russell and Alfred Sts. About $400,000. Architect not selected.

Ill., Centralia—V. E. Joy plans to build 2 story, brick, rein.-con. and steel printing plant. About $60,000. Architect not selected.

Ill., Chicago—Illinois Waterway Comn., c/o W. L. Sackett, supt., 304 South Wabash Ave., having plans prepared for lock and power house, near junction Des Plaines and Kankakee Rivers, Dresden Island. About $2,000,000. M. G. Barnes 304 South Wabash Ave., Chicago, engr.

Ill., East St. Louis—Southern Illinois Milk Producers Assn., Arcade Bldg., having plans prepared by R. G. Kirsch, archt., Magnolia and Thurman Sts., for 1 story, brick and steel factory. About $50,000.

Ill., Mt. Vernon—Faulkner Candy Co., c/o W. H. Faulkner, plans to build 3 story, brick, rein.-con. and steel factory. About $50 000.

Ill., Moline—Moline Daily Dispatch, 1509 3rd Ave. A, plans to build 2 story publishing plant, brick and rein.-con. About $150,000. Architect not selected.

Ill., Rock Island—J. M. Schaab, 1601 4th Ave., plans to build 1 story, 62 x 150 ft., brick and steel garage. About $50,000. Architect not selected.

Ill., Rock Island—J. Ryan Foundry Co., 506 41st St., plans to build 2 story, brick and steel factory. About $50,000. Architect not selected.

Wis., Clinton Junction—Bowman Dairy Co., 140 West Ontario St., having plans prepared by F. B. Gray, archt., 1st Natl. Bank Bldg., St. Louis, Mo., for 1 story, 57 x 200 ft., bottling plant, rein.-con., brick and steel. About $60,000.

Wis., Jefferson—C. A. Baumann having plans prepared building 2 story, 60 x 95 ft., rein.-con. factory, brick foundation. About $40,000. Private plans.

Wis., Milwaukee—School Bd., 10th and Prairie Sts., plans to build heating plants including boiler houses, in following schools, Maryland Ave. school, about $40,000, Walnut St. school, $50,000, Walker St. school, $40,000, 21st St. school, $40,000, Madison St. school, $40,000, and Weil St. school, $18,000. Van Ryn & DeGelleke, 114 Grand Ave., archts. and engrs.

Wis., Milwaukee—R. E. Oberst, archt., 307 Grand Ave., opens bids about Sept. 10, building 2 story, 60 x 127 ft. brick and concrete garage, rein.-con. flooring, plain foundation on Van Buren St., for Van Buren Garage Co., 174 Ogden Ave. About $75,000. Noted Aug. 4.

Wis., Milwaukee—J. Topzant, archt., 307 Grand Ave., opens bids about Sept. 12, building 113 x 130 ft., brick and concrete garage rein.-con. flooring, plain foundation, on North Ave., for Pauly & Marx, 2530 North Ave. About $60,000.

Wis., Portage—Portage Co-operative Canning Co., Michel Bldg., plans to construct cannery, including 3 story, brick and concrete main building, 2 story, brick and concrete power house with brick or concrete stock, 2 story, brick warehouse and 1 story, brick office building. About $275,000. Architect not selected.

Wis., Racine—Harvey Spring & Forge Co. plans to build 3 story, 60 x 120 ft., rein.-con., steel and brick factory, rein.-con. flooring, concrete foundation on Main St., to replace one recently destroyed by fire. About $45,000. Private plans.

Ia., Davenport—Davenport Ice Co., 1st and Myrtle Sts., plans to build 2 story ice plant, brick, concrete and steel. About $75,000. Architect not selected.

Ia., Davenport — Kambach & Ketterman Leather Co. plans to build 2 story, 37 x 80 ft., brick and steel factory. About $50,000. Architect not selected.

Minn., Minneapolis—G. C. Ryan, 523 3d Ave. N., plans to construct 2 story, 85 x 135 ft., garage and sales building, on Lake St. between Stevens and 2nd Aves. About $65,000. Architect not selected.

Kan., McCracken—City plans to build 40 x 45 ft. addition to municipal plant. About $40,000. Ruckel Eng. Co., Hutchinson, engrs.

Kan., Quinter—City plans election to vote $45,000 bonds to build power plant addition. Ruckel Eng. Co., Hutchinson, engrs.

Kan., Wichita — Wichita Visible Pump Co., c/o E. P. Hayes 701 Gilbert St., plans to build 2 story, brick and steel factory, on Gilbert and Santa Fe Sts. About $50,000. Architect not selected.

Industrial Works (Continued)

Mo., Kansas City—Perky Bros. Transfer & Storage Co., 2431 Prospect Ave., plans to build 6 story, rein.-con. and brick warehouse, on Independence St. and Benton Ave. About $175,000.

Mo., St. Louis—Plymouth Garage Co., 5909 Plymouth St., plans to build 1 story, brick and steel garage, on Plymouth and Hamilton Sts. About $50,000. Architect not selected.

Mo., St. Louis—Standard Underground Cable Co., Westinghouse Bldg., Pittsburgh, Pa., having plans prepared by Widmer Eng. Co., archts., Syndicate Trust Bldg., for 2 story, 300 x 525 ft. plant, on Kingshighway and Slevin Ave., here. About $1,000,000. Noted June 9.

Okla., Oklahoma City—Smith Baking Co., 437 West Park St. plans to build 2 story, rein.-con., brick and stone bakery, on 39th St. and Oklahoma Ave. About $150,000. Architect not selected.

Cal., Los Angeles—Western Chemicals Co., 503 Merchants Bank Bldg., having plans prepared for 1 story, 40 x 200 ft., chemical factory, with 40 x 100 ft. wing, steel and iron, on San Pedro Annex. About $150,000. Private plans.

Cal., Pasadena—Pasadena Transfer & Storage Co., 65 South Bway., plans to build 6 story, 66 x 250 ft., Class A rein.-con. garage and warehouse, on South Marengo St. About $150,000. Architect not selected.

Ont., Manitowaning—Hinds Garage plans to rebuild garage and repair shop recently destroyed by fire. About $50,000.

BIDS DESIRED

Pa., Phila.—Until Sept. 15, by L. M. Davis, 1616 Chancellor St., building 2 and 3 story, 60 x 60 ft. concrete, brick and steel addition to garage at 1616-1618 Chancelor St. About $75,000. R. Priest, 1627 Sansom St., engr.

Pa., Phila.—Until Sept. 15, by F. P. Canavan, archt., 7032 Greenway Ave., building 1 story, 40 x 156 ft. brick and timber garage, rock foundation, on 3672 Frankford Ave., for J. F. McCourt, 3672 Frankford Ave. About $50,000.

Ill., Chicago—A. V. Capraro, archt., 105 North Clark St., receiving bids building 2 story, 75 x 120 ft., brick garage, at 1918 South Morgan St., for Spingola & Sons, 750 Taylor St. About $50,000.

Wis., Madison—Until Sept. 26, by University of Wisconsin, building 1 story addition to service building and electric substation. About $55,000. A. Peabody, Capitol, state archt.

Wis., Sheboygan—East Wisconsin Electric Co., c/o H. Ellis, vice- pres., 8th and Pennsylvania Ave., receiving bids building 60 x 210 ft., rein.-con. and steel generating plant, rein.-con. flooring, brick foundation, on Main St. Project will also include transmission line from here to Fond du Lac. About $350,000. Private plans.

Ia., Cedar Rapids—Until Sept. 13, by Harper & McIntyre Co., Ottumwa, building, 2 story, 100 x 140 ft., rein.-con., brick, stone and tile warehouse, on 6th Ave., S., and 4th St. About $165,000. Croft & Boerner, Inc., 1006 Marquette Ave., Minneapolis, Minn., archts. Noted Aug. 4.

Ill., Danville—Until Sept. 14, at office of County Clerk Vermillion Co., building East Georgetown Bridge, rein.-con. arch, four 55 ft. spans, 18 ft. roadway, in McKendree Twp., involving 675.3 cu.yd. Class A and 657.3 cu.yd. Class B concrete, 54,170 lb. reinforcing steel, etc. About $34,000. C. P. McArdle, superintending engr.

Mo., Sedalia—Until Sept. 15, by Swift & Co., building 2 story, 100 x 200 ft. packing plant, rein.-con., brick and steel. About $175,000. G. H. Trader, mgr. Architect's name withheld.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Cambridge—A. F. Robinson, Commercial Ave., let contract building 1 and 2 story, 95 x 105 ft., brick, steel and concrete addition to boiler plant, on Binney and 2nd Sts. to Joslin & Landry Co., 161 Devon St., Boston. About $70,000.

★Mass., Somerville—J. H. Atermian, 275 Beacon St., will build 1 story, 75 x 169 ft., brick and steel garage and service station on Beacon St. Work will be done by day labor. Private plans.

★N. Y., New York—R. H. Macy & Co., 34th St. and Broadway, let contract building 8 story, brick, steel and concrete factory, rein.-con. flooring, concrete foundation, on 35th St. and 11th Ave., to Hegeman-Harris Co., 185 Madison Ave. About $300,000. Noted Aug. 18.

★Pa., Phila.—S. Alexander, 4210 Otter St., let contract building 2 story, 48 x 132 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on 4th and Seigel Sts., to N. Litman, 1597 North 52nd St. About $55,000.

★Pa., Phila.—General Smelting Co., Stock Exch. Bldg., let contract building 1 story, 66 x 100 ft. factory, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Bath and Westmoreland Sts., to H. E. Baton, 1716 Sansom St.

★Pa., Phila.—R. E. Foulkrod, 4658 Frankford Ave., let contract building 1 and 2 story, 43 x 129 ft. and 14 x 26 ft. garage on Rising Sun Ave. and St. Vincent St., to W. E. S. Dyer, Land Title Bldg. About $40,000.

Pa., Phila.—S. Ulick, 1904 North 32nd St., will build 4 story, 110 x 120 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, on 33rd and Columbia Aves. About $150,000. Work will be done by day labor.

★Va., Roanoke—Amer. Viscose Co., c/o C. A. Ernest, Marcus Hook, Pa., will build 330 x 700 ft. silk mill, brick, steel and concrete, rein.-con. flooring, concrete and brick foundation, here. About $1,000,000. Work will be done by day labor.

★O., Cleveland—Koller Bros., 724 Prospect Ave., let contract building 1 story, 50 x 101 ft., brick and steel garage, brick foundation, at 663 Huron Rd., to C. N. Griffin, 5511 Euclid Ave. About $50,000.

★Ill., Chicago—Woodlawn Battery Co., 1466 East 67th St., let contract building 1 story, 50 x 125 ft., battery service station, mill construction, at 1540-42 East 67th St., to G. A. Gungall, 6407 South Park Ave. About $40,000.

★Ill., Marshall—Illinois Waterway Comn., c/o W. L. Sackett, supt., 304 South Wabash Ave., Chicago, let contract building power house and 110 x 600 ft. rein.-con. and steel lock, at Bells Island, near here, to Green & Sons, Streator. About $60,000.

★Wis., La Crosse—La Crosse Rubber Mills, Indian Hill, let contract building 3 warehouses, each 1 story, 60 x 200 ft., brick, concrete and steel, rein.-con. flooring, plain foundations, to D. L. Page, Rockford, Ill. About $125,000.

★Wis., Manitowoc—Aluminum Good Mfg. Co. let contract building 1 story, 52 x 60 ft. brick and concrete garage, rein.-con. flooring, plain foundation, to H. V. Hertling, Inc., Dempsey Bldg. About $40,000.

★Wis., Milwaukee—Peerless Electric Co., 2028 Fond du Lac Ave., let contract building 1 story, 45 x 120 ft., brick and concrete garage, rein.-con. flooring, plain foundation, on 18th and North Aves., to Byrne Bros., 3112 Burleigh St. About $40,000.

★Wis., Prairie du Sac—Wisconsin River Power Co. let general contract building 1 story, 60 x 81 ft. power and machine shop, brick, steel and rein.-con., rein.-con. flooring, brick foundation, on Main St., to Dresen Bros. Co., Prairie du Sac. About $50,000.

★Wis., Sauk City—Sauk City Canning Co., will construct cannery, including 3 story, 80 x 80 ft. mill construction, main building, 1 story, 32 x 40 ft. brick and concrete boiler house and 2 story, 75 x 120 ft., brick and concrete warehouse. Cost between $75,000 and $80,000. Work will be done by day labor. J. Dresen, Sauk City, archt. Noted Sept. 1.

★N. D., Dickinson—State Bd. Administration, Bismarck, let contract building power plant, at Normal School, here, to Harrison & Son, Jamestown. About $40,000. Noted July 28.

★Mo., Kansas City—Unico Motor Products Co., c/o W. R. Alexander, 1229 West 59th St., let contract building 1 story, 60 x 224 ft. factory, rein.-con. brick and steel, on Rochester and Park Sts., to F. H. Crites, 2136 Belleview St. About $75,000.

★Mo., St. Louis—Klipstein & Rathman, archts., Chemical Bldg., let contract to A. H. Haesler Constr. Co., Wainwright Bldg., constructing 1 story, 107 x 132 ft. enameling plant, brick, and steel, on Bway. and Madison St., for Standard Stamping Co., c/o G. Wiegand, 2000 North Bway. About $50.000. Noted Aug. 11.

Buildings

PROPOSED WORK

Mass., New Bedford—Business—B. Zeitz, 132 Union St., having plans prepared by Leary & Walker, archts., Times Bldg., constructing 3 story, 50 x 120 ft., brick, steel and rein.-con., on Union and 6th Sts.

Mass., Worcester—Theatre—A. Goodside, Fidelity Bldg., Portland, Me., plans to build brick, concrete and steel, here. About $1,000,000. Architect not announced.

R. I., Providence — Gymnasium — City Property Comn. plans to build 2 story, brick and steel, at Providence High School. About $250,000. Architect not selected.

R. I., Providence—High School—Pub. Bldg. Dept. plans to build 3 story, brick, concrete and steel, on Pond St. About $1,250,000.

R. I., Providence—School—Pub. Bldg. Dept. plans to build 3 story, including auditorium. About $500,000. Architect not selected.

Conn., Bridgeport—Parish House—Olivet Congregational Church, 2140 Main St., having plans prepared by J. W. Skinner, archt., 1188 Main St., building 2 story, 45 x 125 ft. brick and steel, on Main St.

Conn., Hartford—Business—Estate of J. J. Goodwin, 36 Pearl St., plans to build 2 story, 110 x 110 ft., brick, steel and concrete, on Haynes St. Architect not announced.

Conn., New Haven—Business—J. Porter, 703 Main St., Hartford, plans to build 3 story, brick, steel and marble, on Chapel and Orange Sts. About $150,000. R. W. Foote, 185 Church St., archt.

N. Y., Brooklyn—Office and Show Rooms—Boyartown Burial Casket Co., 671 8th Ave., New York City, plans to build 6 story, 50 x 55 ft., brick, steel and stone, on Lafayette Ave. and South Felix Pl. About $175,000. Architect not selected.

N. Y., Brooklyn—School—Dept. Educ., 500 Park Ave., New York, having plans prepared by C. B. J. Snyder, archt. and engr., 28th floor, Municipal Bldg., New York, for 5 story, brick, steel and stone addition to P. S. 67, concrete foundation, on North Elliott Pl. About $600,000. Noted May 5.

N. Y., Flushing—School—Bd. Educ., 500 Park Ave., New York City, plans to build P. S. 22, brick, steel and stone, concrete foundation, here. About $470,000. C. B. J. Snyder, Municipal Bldg., New York City, archt. and engr.

N. Y., Hammel (Far Rockaway, P. O.)—School—Bd. Educ., 500 Park Ave., New York City, plans to build brick, steel and stone, concrete foundation here. About $300,000 Private plans.

N. Y., Maspeth (Flushing, P. O.) — School—Bd. Educ., 500 Park Ave., New York City, plans to build P. S. 73, brick, steel and stone, concrete foundation, here. About $300,000. C. B. J. Snyder, Municipal Bldg., New York City, archt. and engr.

N. Y., New York — Offices—New York Life Insurance & Trust Co., 52 Wall St., soon receives bids building 3 story, 40 x 70 ft., brick, steel and stone, concrete foundation, at 706 Madison Ave. About $150,000. F. E. Newman, 120 East 40th St., archt. and engr. Noted June 23.

N. Y., Ozone Park (Jamaica P. O.)—School—Bd. Educ., 500 Park Ave., New York City, plans to build P. S. 62, brick, steel and stone, concrete foundation, here. About $200,000. C. B. J. Snyder, Municipal Bldg., New York City, archt. and engr.

N. Y., Rockaway Park (Far Rockaway, P. O.)—School—Bd. Educ., 500 Park Ave., New York City, plans to build P. S. 40, brick, steel and stone, concrete foundation, here. About $200,000. Private plans.

N. Y., Woodhaven (Jamaica P. O.)—School—Bd. Educ., 500 Park Ave., New York City, plans to build P. S. 63, brick, steel and stone, concrete foundation, here. About $150,000. C. B. J. Snyder, Municipal Bldg., New York City, archt. and engr.

N. J., Englewood—City Hall—City plans to build 2 story, 60 x 125 ft. brick, steel and stone. About $500,000. D. J. McKenna, City Hall, Palisade Ave., chn.

N. J., Jersey City—Apartment—E. Ericksen, 150 Harrison Ave., receives bids in November building 5 story, 90 x 120 ft., brick, on Fairmount Ave. About $200,000. E. M. Patterson, 76 Montgomery St., archt.

N. J., Jersey City—Y. M. C. A., 72 Montgomery St., having sketches made by J. F. Jackson, archt. and engr., Gotham Natl. Bank Bldg., Columbus Circle, New York City, for brick, steel and stone, concrete foundation, on Bergen Ave. About $500,000. Noted Feb. 3.

N. J., New Brunswick—Laboratory—State having plans prepared by A. D. Mills, archt., 142 West State St., Trenton, for laboratory, etc., here. About $200,000.

N. J., Union Hill—Theatre, Office and Store—Capitol Theatre Amusement Co. having plans prepared by P. A. Vivarttas, archt., 110 4th St., for 3 story, 200 x 200

Buildings (Continued)

ft., brick, stone, granite and marble, on Bergenline Ave. About $1,000,000.

Pa., Phila.—Apartment—C. F. Wilmer, 3211 Comly St., having plans prepared by Penwood Co., archts., 131 North 15th St., for 3 story, 53 x 131 x 140 ft., brick and cut stone, on Mascher St. and Rockland Blvd. About $150,000.

Pa., Phila.—Theatre and Store—Hoffman-Henon Co., archts., Finance Bldg., preparing plans for 1 story, 110 x 180 ft. rein.-con., brick and steel, rein.-con flooring, concrete foundation at 1825-1833 Market St. About $200,000. Owner's name withheld.

Pa., Pittsburgh — Theatre — Roland & Clark, Pittsburgh, having plans prepared by W. A. Snaman, archt., Empire Bldg., for 2 story, 50 x 100 ft. brick, steel and stone, on 5th Ave. About $600,000.

Pa., Wayne—High School—Radnor Twp. School Bd. having preliminary plans prepared by H. C. Richards, archt., 608 Chestnut St., Phila., for 3 story. About $300,000

D. C., Wash.—High School—Dist. Comrs., 509 Dist. Bldg., having plans prepared by A. L. Harris, municipal archt., Dist. Bldg., for New Eastern High School. About $1,500,000.

D. C., Wash.—Science Hall and Office—National Research Council, 1201-16th St N. W., plans to construct science hall and office building, at 22nd and B Sts., N W. About $2,000,000. B. Goodhue, 2 West 47th St., New York City, archt. Meyer, Strong & Jones, 101 Park Ave., New York City, engrs.

La., New Orleans—School—School Bd having plans prepared by E. A. Christy, city archt., for Gayaire School, 14 room, 60 x 120 ft., brick, on block bounded by Painter, Robinson, Art and Claiborne Sts. About $200,000.

Tenn., Nashville—Asylum—City c/o F. Z. Wilson, mayor, plans to build Farreley Orphan Asylum. About $150,000. Architect not selected.

O., Canton—Bank and Office—City Natl. Bank, Market Ave., S., plans to build 3 story, on Market Ave. N. and 2nd St. About $150,000 J. H. Kenny, dir.

O., Canton — Club and Office — Eagles Home Co., Tuscarawas St. and Walnut Ave., N.E., having plans prepared by C. E. Firestone, archt., Renkert Bldg., for 5 story, on Market Ave., S. About $200,000.

O., Canton—Hotel, Theatre and Office—Continental Clay Co., Cleveland Ave., N., having plans prepared by F. Swirsky, archt., Akron, for 10 story, 135 x 200 ft., on 3rd St. and Cleveland Aves., N. W. About $1,500,000. J. A. Calhoun, pres.

O., Cleveland—Commercial and Office—Pythian Building Co., Garfield Bldg., having plans prepared by Allen-Osborn Co., archts., Rose Bldg., for 16 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on East 9th St. and Superior Ave. About $4,000,000.

O., Cleveland—Commercial and Theatre—E. Kohl, 7507 Linwood Ave., plans to build 2 story, concrete, brick and steel, rein.-con. flooring, brick and concrete foundation, on East 55th St. & Lexington Ave. About $150,000. Architect not selected.

O., Cleveland — Hospital — Amer. Osteopathic Assn., c/o P. Roscoe, 7016 Euclid Ave., plans to build 3 story, brick, steel and concrete foundation. About $200,000. Architect not selected.

O., Dayton—Store and Office—G. W. Schroyer, 2nd and Main Sts., having plans prepared by Schenk & Williams, archts., Mutual Home Bldg., for 4 story, 35 x 140 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, on 1st and Main Sts. About $150,000.

O., Dayton—High School—Bd. Educ. having plans prepared by R. Rossell, archt., Dayton, for 1 story, 82 x 100 ft., brick, steel, concrete and stone, with 1 story, 24 x 84 ft. and 2 story, 66 x 66 ft. wings, on Steele St. About $400,000.

O., East Cleveland (Cleveland P. O.)—Commercial and Apartment—East Cleveland Corner Co., c/o L. A. Katz, Republic Bldg., Cleveland, having plans prepared by A. F. Janowitz, archt., Permanent Bldg., Cleveland, for 3 story, 110 x 220 ft., brick, concrete and steel, rein.-con. flooring, concrete and brick foundation, on Euclid and Superior Aves. About $250,000.

O., Middletown—Hotel—F. L. Packard, archt., New Hayden Bldg., Columbus, preparing revised plans for 6 story, 130 x 168 ft., brick, concrete and steel, rein.-con. flooring, brick foundation, here, for Middletown Hotel Co. J. A. Aull, acting chmn. Bd. Dir. Former bids rejected. Noted June 30.

Ind., Elkhart—Bank—Hoggson Bros. Co., archts., 38 South Dearborn St., Chicago, soon receives bids building 2 story, 70 x 105 ft., brick and stone, on Main and Marion Sts., for St. Joseph Valley Bank, 214 South Main St. About $225,000. Noted July 14.

Ind., La Fayette—Dormitory and School—Student Union, 24 Russell St. W., having plans prepared by Pond & Pond, archts., 64 West Van Buren St., Chicago, for 3 story, brick. About $500,000.

Mich., Detroit—Apartment—Levine Bros., 444 Peterboro St., having plans prepared by J. B. Jogerst, archt., 444 Peterboro St., for 4 story, rein.-con., brick and steel, concrete foundation, on Peterboro St. About $150,000.

Mich., Detroit—Restaurant and Dance Hall—L. Kamper, archt., 752 Book Bldg., preparing plans for 3 story, 120 x 200 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $250,000. Owner's name withheld.

Mich., East Lansing—Club House—Michigan Agricultural Union Bd. had plans prepared by Pond & Pond, archts., 64 West Van Buren St., Chicago, and soon receives bids building 3 story, 145 x 175 ft., rein.-con. and brick. About $500,000.

Mich., Plymouth — Penal Institution — Detroit House of Correction, 1441 Alfred St., Detroit, having tentative plans prepared by A. Kahn, archt., 1000 Marquette Bldg., for rein.-con., brick and steel, rein.-con. flooring, concrete foundation, here. About $3,000,000.

Mich., Port Huron — Theater — Port Huron Theater Co. having plans prepared by G. L. Harvey, archt., Huron Ave., for 2 story, 88 x 150 ft., rein. con., brick and steel, rein.-con. flooring, concrete foundation, on Military St. About $175,000.

Ill., Benton—Store and Theatre—Reed & Yamm, Duquoin, having plans prepared by Kinnerly & Stiegmeyer, archts., Title Guarantee Bldg., St. Louis, Mo., constructing 2 story, 90 x 100 ft., rein.-con. and brick, here. About $150,000.

Ill., Bradford—Church—St. John's Catholic Church, c/o A. A. Stapleton, pastor, having plans prepared by A. F. Moratz,

Worth Repeating—

in the interests of reader, field and publisher alike

What else do you want?
What else would you like us to do for you?

Each week in these pages you find our best labor and thought—Ceaseless planning, direction, an adequate office force, 100 intelligent, conscientious correspondents; open minds, new ideas, improvements, balance, driving force, an incoming stream of construction reports.

It's all done in your interests.
What else do you want us to do.

Following these pages week by week are you annoyed by some sin of commission or omission that you wish we would rectify? Tell us about it, by all means, and at once; "we would rather be right than be president," and to be right means to be of the utmost service to the readers of *Engineering News-Record.*

Do you feel that we are neglecting your section of the country? That can easily be remedied; turn to our "Searchlight Section," and you will see an advertisement for Construction News Correspondents in a number of cities. We want to be represented in your section.

If you don't knock, boost, criticize, suggest, how are we to serve each other—we, by giving you what you want, and you, by wanting exactly what we give?

Write just as long letters as you please to

Engineering News-Record
Tenth Ave. at 36th Street, New York

Buildings (Continued)

archt., Peoples' Bank, Bloomington, for 2 story, rein.-con., brick and stone. About $150,000. Noted Aug. 25.

Ill., Carbondale—Hospital—Holden Hospital Assn. having plans prepared by T. C. Thompson, archt., 1000 South 10th St., building 2 story, brick, rein.-con. or steel. About $150,000.

Ill., Centralia—Apartment—M. J. Hart and B. Gudder plan to build 2 story, brick, rein.-con. and stone. About $150,000. Architect not selected.

Ill., Champaign — Dormitory — Rotary Club, c/o H. K. Millard, having plans prepared by G. Ramey, archt., Roberson Bldg., for 3 story, rein.-con., brick and stone. About $150,000. Noted Aug. 25.

Ill., Chicago—Bank—People's Stock Yards Bank, 1542 West 47th St., having plans prepared by C. Thisslen, archt., 4433 North Pauling St., for 3 story, 50 x 130 ft., brick and concrete addition, at 1542 West 47th St. About $200,000.

Ill., Chicago—Club — Lafayette Council, Knights of Columbus, plans to build 4 story, 144 x 265 ft., brick, concrete and stone, on Fullerton and Fairfield Aves. About $300,000. Architect not selected.

Ill., Chicago—Film Exchange—M. Friedberg, c/o Boston Store, having plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., building 8 story, 50 x 145 ft., brick, rein.-con., and terra cotta, rein.-con. flooring, at 1234-6 South Wabash Ave. About $500,000. Noted Sept. 30.

Ill., Elgin—Temple—Elgin and Monitor Masonic Lodge, c/o E. H. Abbor, Home Bank Bldg., having plans prepared by R. E. Abbell, archt., Spurling Bldg., for 2 story, brick, rein.-con. or steel, fireproof construction. About $150,000. Noted Sept. 1.

Ill., Freeport—Theatre—J. Dittman, 149 Carroll St., plans to build 1 story, 90 x 140 ft., rein.-con., brick and terra cotta. About $150,000. Architect not selected.

Ill., Moline — Apartment — W. Cornwell, c/o Chamber of Commerce, Moline, plans to build 6 story, rein.-con., brick, terra cotta and steel. About $900,000. Architect not selected.

Ill., Moline—Office, etc.—Carlson Bros., 417 15th St., plans to build 3 story office and warehouse, rein.-con. and brick. About $150,000. Architect not selected.

Ill., Peoria — School and Hall — St. Cecelia's Parish having plans prepared by F. J. Klein, archt., 331 Main St., for 2 story, 62 x 140 ft., rein.-con., brick and stone. About $150,000. J. G. Cosgrove, pastor. Noted Sept. 1.

Ill., Rock Island — College—Augustana College, 38th St., plans to build brick, stone, rein.-con. and steel college including seminary building, science hall, boys' and girls' dormitories. About $400,000. G. A. Anderson, pres. Architect not selected.

Ia., Des Moines—Club—Des Moines Women's Club, 15th St. and Woodland Ave., having plans prepared by Vorse, Kreatch & Kreatch, archts., 911 S & L Bldg., for 2 story, 80 x 120 ft., rein.-con., brick and stone, on 15th St. and Woodland Ave. About $150,000.

Ia., Des Moines — School—Methodist Episcopal Congregation, c/o A. E. Griffith, 1341 Jefferson St., rejected bids Aug. 16, building 3 story, 100 x 132 ft., rein.-con., brick, stone and tile, on Pleasant and 10th Sts. Proudfoot, Bird & Rawson, 810 Hubbell Bldg., archts.

Minn., Duluth—Hospital—City plans to build 3 story, 135 x 175 ft., rein.-con. and steel, rein.-con. flooring, concrete foundation, on 14th Ave. W., and 2nd St. About $250,000. E. K. Coe, city engr. Architect not selected.

Minn., Minneapolis — Academy — Holy Angels Academy, 643 North 4th St., having plans prepared by J. H. Wheeler, archt., 508 Exchange Bank Bldg., St. Paul, for 3 story, 60 x 120 ft., rein.-con., brick and tile, at Medicine Lake, near here. About $150,000.

Kan., Eldorado—Church—Baptist Church Congregation having plans prepared by J. H. Felt, archt., Grand Ave. Temple, Kansas City, Mo., for 2 story, 100 x 1,000 ft., brick, stone and steel. About $150,000.

Kan., Independence—Convention Hall—City voted $250,000 bonds to build 2 story convention ha'l. G. H. Krienhagen, clk. Architect not selected. Noted June 30.

Kan., Topeka—Church—First Methodist Episcopal Church, 6th and Harrison Sts., having plans prepared by T. W. Williamson & Co., archts., 418 Central Natl. Bank Bldg., for 2 story, 100 x 150 ft., rein.-con. and stone. About $150,000. Noted Aug. 25.

Kan., Topeka—Junior High School—Bd. Educ., c/o M. C. Holman, secy., plans to build 2 story, brick, rein.-con. and steel. About $150,000. Architect not selected.

Kan., Winfield—Church—Holy Name Roman Catholic Church, c/o J. J. Brady, chn., plans to build 2 story, brick, stone and steel. About $150,000. Architect not selected.

Tex., Dallas—Convent—Sisters of Mercy, c/o J. Morris, Coal Exch. Bldg., Phila., Pa., having plans prepared by E. F. Durango, archt., 1200 Locust St., Phila., Pa., for 3 story, 50 x 320 ft., stone, brick, steel and concrete addition, rock foundation. About $200,000

Okla., Sulphur—Hospital—State, c/o H. B. Fell, chn., Ardmore, soon receives bids building 1 story, rein.-con., steel and brick, rein.-con. flooring, brick and rock foundation, here. About $150,000. C. P. Nieder, Oklahoma City, archt.

Col., Denver — Hall—Society of Jesuits, West 50th Ave. and Lowell Blvd., receives bids in November building 3 story, 150 x 180 ft., rein.-con. and stone, rein.-con. flooring, concrete foundation, on West 50th Ave. and Lowell Blvd. About $300,000. H. J. Manning, Majestic Bldg., archt. Noted May 12.

Wash., Seattle — Apartment — Seattle Community Apartment Co., c/o W. Bruce, archt., Peoples Bank Bldg., having plans prepared building 8 story, 72 x 100 ft., steel and concrete, also 2 story fireproof garage, on 5th and Kinnear Sts. About $380,000.

Wash., Seattle—Apartment—J. H. Williams, c/o H. H. James, archt., 312 Amer. Bank Bldg., having plans prepared building 10 story, steel and concrete, at 1208 6th Ave. About $200,000.

Cal., Long Beach—Hotel and Bank—W. R. Krafts and associates, 1320 Marquita St. having plans prepared by Wallace, Bush & Skidmore, archts., Los Angeles Railway Bldg., for 6 story, 110 x 150 ft., brick, steel and terra cotta, concrete foundation, on 4th and Elm Sts. About $350,000.

BIDS DESIRED

Conn., Shelton—High School—Until Sept. 30, by F. H. Scranton, chn. City Finance Com., building 2 story, brick and steel, rein.-con. flooring, on Hill St. and Coram Ave. About $150,000. Brown & Van Beren, 185 Church St New Haven archts.

N. Y., Rochester—Church—Until Sept. 28, by Gordon & Kaeber, archts., 125 Sibley Blk., building 2 story, 100 x 100 ft., rein.-con., brick and steel, concrete foundation, on Culver Rd. and Parsell Ave., for Spencer-Ripley Methodist Episcopal Church. About $150,000. Noted April 14.

N. J., Rutherford — High School—Until Sept. 23, by Bd. Educ., building 2 story, brick and stone, brick foundation. About $325,000. Rasmussen & Wayland, 252 West 46th St., New York City, archts. and engrs. Noted June 30.

Pa., Mt. Lebanon—School—Until Sept. 12, by Bd. Educ., building 3 story, concrete, brick and steel, rein.-con. flooring, on Washington Rd. About $225,000. Ingham & Boyd, Vandergrift Bldg., Pittsburgh, archts.

Pa., Phila.—Apartment—Until Sept. 15, by R. Sonefeld, 707 Walnut St., building 4 story, 105 x 250 ft. brick, stone and tile, on 47th and Walnut Sts. About $160,000. F. E. Hahm, 1112 Chestnut St., archt.

Pa., Williamsport—Until Feb. 1, (change of date) by Martin & Kilpatrick, archts., 130 South 15th St., Phila., building, 5 story, 150 x 175 ft. brick and stone, rein.-con. flooring, rock foundation, on Elmira and 4th Sts., for Y. M. C. A., c/o E. H. Davis, Williamsport. About $400,000. Noted Aug. 4.

Md., Betterton — Hotel — Until Sept. 25 by C. E. Dudnick, archt., Drexel Bldg., Phila., Pa., building 3 story, 40 x 80 ft., concrete, brick and steel, concrete foundation, here. About $150,000. Colonial Hotel Co., c/o architect, owner.

Md., Salisbury—Church and Sunday School—Until Sept. 20, by G. E. Savage, archt., Witherspoon Bldg., Phila., Pa., building 1 story, 10 x 125 ft., concrete, brick and steel, rein.-con. flooring, here. About $150,000. Berbeda Methodist Church, c/o R. L. Shipeley, owner. Noted June 30.

O., Cleveland — Apartment — M. Weis, archts., 618 Union Bldg., receiving bids building 4 story, 66 x 108 ft., brick and timber, brick foundation, on Northpark Blvd. and Grandview Ave., for E. A. Markham, 10309 Euclid Ave. About $150,000.

O., Cleveland—Commercial and Apartment—A. D. Hertz, 9905 Pierpont Ave., receiving bids building 3 story, 85 x 126 ft., brick and timber, brick foundation, at 8900 Hough Ave. About $150,000. A. F. Janowitz, Permanent Bldg., archt.

O., Cleveland—Schools—Until Oct. 24 (change of date), by Bd. Educ., East 6th St. and Rockwell Ave., constructing two 2 story, 160 x 300 ft., brick, steel and concrete, rein.-con. flooring, concrete foundations, one on Broadview and Spring Rds., the other on East 140th St. and Darley Ave. About $500,000 each. W. R. McCornack, East 6th St. and Rockwell Ave., archt. Noted Aug. 4.

O., Oberlin—High School—Until Sept. 17, by Bd. Educ., building 2 story, brick, steel and concrete, rein. con. flooring, brick and concrete foundation, on Main St. About $300,000. F. C. Warner, Hippodrome Annex Bldg., Cleveland, archt.

O., Venice—School—Until Sept. 19, by Bd. Educ. building 2 story, brick, steel and concrete, rein.-con. flooring, concrete and brick foundation. About $200,000. F. L. Packard, Hayden Bldg., Columbus, archt.

Mich., Ann Arbor—Schools—Until Sept. 27, by J. Schlee, secy. Bd. Educ., building 14 room school on Miller Ave., 12 room in Ward 6 and 20 room on New Jones site, each 3 story, rein.-con., brick, steel, stone and terra cotta, rein.-con. flooring, concrete foundation. D. Steadman Co., 320 North 5th Ave., and Lumber Exch. Bldg., Chicago, Ill., archts.

Ill., Chicago—Bank and Office—Until Sept. 12, by Graham, Anderson, Probst & White, archts., 80 East Jackson St., building 21 story, 178 x 323 ft., brick, stone, steel and tile, concrete foundation, on Jackson and Clark Sts., for Illinois Merchants Trust Co., 112 West Adams St. About $9,000,000. Noted June 9.

Ill., Chicago—Hotel—W. W. Ahlschlager, archt., 65 East Huron St., receiving bids building 12 story, 65 x 150 ft., rein.-con., brick and terra cotta addition, rein.-con. flooring, on Sheridan Rd. and Wilson Ave., for Sheridan Plaza Hotel Co., Wilson Ave. and Sheridan Rd. About $800,000. Noted July 21.

Ill., Chicago—School—J. C. Christensen, archt., 650 South Clark St., receiving bids building 3 story, 188 x 277 ft., brick and stone, on 99th St. and Ave. H, for Bd. Educ., 650 South Clark St. About $600,000. Noted June 3.

Ill., Peoria — Hotel and Store — J. W. Parker, 519 North Monroe St., having plans prepared by F. J. Klein, archt., 331 Main St., for 6 story, rein.-con. and brick. About $300,000. Noted Sept. 1.

Ill., Wilmette—School—Until Sept. 15, F. B. Bryne, archt., 104 South Michigan Ave., Chicago, building 2 story, 100 x 100 ft., rein. con., brick and stone, fireproof construction, on 9th St. and Linden Ave., for St. Francis Xavier Church, c/o F. C. Kelly, pastor. About $150,000.

Wis., Manitowoc—Office—W. J. Roeuber, archt., Manitowoc, receiving bids building 1 story, 32 x 132 ft., brick, rein.-con. and steel, rein.-con. flooring, brick foundation, on North 8th St., here, for C. Russ Coal Co., South 8th St., Sheboygan. About $150,000.

Ia., Des Moines—High School—Until Sept. 27, by G. L. Garton, secy., Bd. Educ., building Abraham Lincoln School, 2 story, 240 x 360 ft., rein.-con., brick, tile and stone, rein.-con. flooring, concrete foundation, on South West 9th and Loomis Sts. About $700,000. Proudfoot, Bird & Rawson, Hubbell Bldg., archts. Noted Sept. 1.

Kan., Manhattan—Economics and Cafeteria—Until Sept. 23, by R. Gamble, archt., 1415 Fillmore St., Topeka, building 2 story, 82 x 132 ft., rein.-con., brick and stone, here, for State, c/o J. A. Kimball, Topeka. About $150,000. Noted July 28.

Mo., St. Louis—Hospital—Until Sept. 13, by E. A. Hadley, engr., Ry. Exch. Bldg., constructing 7 story, 121 x 182 ft., brick, stone and concrete, on Grand St. and Shaw Ave., for Missouri Pacific R.R., California and Eads Sts. About $500,000. Former bids rejected. C. H. Wray, Rialto Bldg., archt. Noted July 14.

Mo., St. Louis—Hospital—Until Sept. 22, by A. B. Groves, archt., Stock Exch. Bldg., constructing 7 story, 160 x 280 ft., brick and steel, rein.-con. flooring, on Bellview and Clayton Rds., for Sisters of St. Mary, 1536 Papin St. About $1,000,000. Noted July 14.

Mo., St. Louis—School—Until Sept. 13, by Bd. Educ., Bd. Educ. Bldg., constructing Woodward School, 2 story, 94 x 257 ft., rein.-con., brick, stone and steel, on Kingshighway and Alabama St. About $385,000. R. M. Milligan, c/o owner, archt.

Okla., Cushing—School—Until Sept. 15 by Bd. Educ. building 2 story, 64 x 18

Buildings (Continued)

ft., rein.-con., brick, stone and steel. About $150,000. J. P. Bradley, Pawhuska, archt

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**N. J., Jersey City** — Theater—State Theater Corp., Sinisi Bldg., let contract building 3 story, 94 x 165 ft., brick, concrete and marble, on Hudson Blvd., to J Mitchell, 76 Montgomery St. About $400,000.

★**N. Y., Brooklyn** — Apartment—Choise Apartment Corp., c/o Cohn Bros., archts. and engrs., 361 Stone Ave., will build 4 story, 100 x 110 ft., brick, steel and stone, concrete foundation, on Brooklyn Ave. and Carroll St. About $150,000. Work will be done by day labor.

★**N. Y., Brooklyn** — Apartments — M. Jonas, c/o B. W. Dorfman, archt. and engr., 26 Court St., will build two 4 story, brick, steel and stone, concrete foundations, on Ft. Hamilton Parkway and 58th St. About $175,000 each. Work will be done by day labor.

★**N. Y., Brooklyn**—Exchange—New York Telephone Co., 15 Dey St., New York City, let contract building 2 story, brick, steel and stone, concrete foundation, on Bushwick Ave. and Palmetto St., here, to G. B. Beaumont & Co., 286 5th Ave., New York City. About $300,000.

N. Y., Brooklyn—School—C. R. J. Snyder, supt. School Bldg., Municipal Bldg., New York City, opened bids Sept. 2, building additions to and alterations in P. S. 136. on northerly side of 4th Ave. between 40th and 41st Sts., here from Frymier & Hanna, 25 West 45th St., New York City, $419,300; P. Clery, 115 Marion St., $419,562; P. J. Brennan & Son, 624 Madison Ave., New York City, $426,300. Noted Aug. 25.

N. Y., Coney Island — Bath House—E. Riegelmann, pres. Brooklyn Boro, opened bids Aug. 31, building addition to municipal bath house on Concourse Dr. and 5th St., here, from Turner Constr. Co., 37 Hewes St., Brooklyn, $189,900; Gretch Eng. Corp., 103 Park Ave., New York City, $193,000; Keppler Constr. Co., $249,735. Noted Aug. 25.

★**N. Y., New York**—Apartment—Blossom Realty Co., c/o I. Margon & C. Glaser, archts. and engrs., 2803 3d Ave., will build 5 story, 90 x 100 ft., brick, steel and stone, concrete foundation, on Grand Concourse, Bronx. About $165,000. Work will be done by day labor.

★**N. Y., New York**—Apartments—A. W. King Co., 81 East 125th St., will build two 5 story, 70 x 125 ft., brick, steel and stone, concrete foundations, on Morris Ave., Bronx. About $150,000 each. Work will be done by day labor. I. Margon & C. Glaser, 2803 3d Ave., archt. and engrs.

★**N. Y., New York**—Apartments—H. A. Langner, c/o I. Margon & C. Glaser, archts. and engrs., 2803 3d Ave., will build three 5 story, brick, steel and stone, concrete foundations, on 180th St. and Bryant Ave., Bronx. About $150,000 each. Work will be done by day labor.

★**N. Y., New York**—Apartment—Nento Building Corp., 405 Bway., will build 13 story, brick, steel and stone, concrete foundation, on Bway. and 90th St. About $1,200,000. Work will be done by day labor. Rouse & Goldstone, 512 5th Ave., archts. and engrs.

★**N. Y., New York**—Apartment—Sixty-Seven Park Ave., Corp., c/o Schwartz & Gross, archts. and engrs., 347 5th Ave., will build 14 story, 57 x 105 ft., brick, steel and stone, concrete foundation, on Park Ave. and 38th St. About $750,000. Work will be done by day labor.

★**N. Y., Syracuse**—School—Bd. Contract & Supply let general contract building Franklin School, on North Alvord St., to Shane Constr. Co., Herald Bldg., $387,319; electrical work, to R. E. Handlin, 212 Montgomery St., $16,100; heating and power work, to Ryan Plumbing & Heating Co., 160 Court St., Watertown, $71,883. Noted Sept. 1.

★**Md., Catonsville** (Baltimore P. O.)—Convent—St. Charles College let contract building 3 story, 50 x 140 ft. stone, here, to J. J. O'Connor, 218 East Lexington St., Baltimore, $180,000.

★**D. C., Wash.**—Hotel—J. D. De Sibeur, archt., Hibbs Bldg., let contract building New Hamilton Hotel, 10 story, 320 room, to W. E. Whitty & Co., Union Trust Bldg. About $2,000,000.

★**O., Cleveland**—Commercial—J. L. Free and Co., 1014 Prospect Ave., let contract building 2 story, 93 x 165 ft., brick, steel and concrete, at 1227 Prospect Ave., to Crowell & Little Constr. Co., 3751 Prospect Ave. About $150,000.

★**O., Cleveland**—School—Bd. Educ., East 6th St. and Rockwell Ave., let contract building 2 story, brick, steel and concrete, rein.-con. flooring, concrete and brick foundation, on Everton Ave. and Parkwood Dr., to Drummond & Miller Co., 4500 Euclid Ave., $207,830. Noted Aug. 4.

O., Cleveland—Schools—Bd. Educ. received bids constructing (1) John Adams School, 3 story, (2) Sunbeam School, 3 story, (3) 2 story addition on Rawlings Ave.; all above brick, steel and concrete, rein.-con. flooring, brick and concrete foundations, from Tenbusch-Parker Constr. Co., Union Bldg., (1) $781,617, (2) $370,266, (3) $243,520; Drummond-Miller Co., 4500 Euclid Ave., (1) $815,000, (2) $387,000; C. C. Kinne Co., Bangor Bldg., (1) $849,000, (2) $353,700, (3) $244,200; Peterson Co., 4500 Euclid Ave., (3) $246,491.

★**O., Dayton**—Theatre—B. F. Keith Co., 1564 Bway., New York City, let contract building 3 story, rein.-con. and brick, rein.-con. flooring, concrete foundation, on 4th and Ludlow Sts., here, to W. M. Sutherland Bldg. & Contg. Co., Syndicate Trust Bldg., St. Louis, Mo. About $950,000. Noted April 21.

★**Mich., Detroit**—Lodge—Detroit Loyal Order of Moose, 40 Congress St., let contract for 3 story, 113 x 127 ft., on Cass Ave. and Elizabeth St., to Pine & Munnecke Co., 103 Marquette Bldg. About $500,000. Noted Jan. 27.

Mich., Detroit—School—Bd. Educ., 1354 Bway., received bids constructing 2 story, school addition on West Grand Blvd., from M. A. Mahoney, 400 Penobscot Bldg., $134,095; M. Bartholomaei, 1574 East Warren Ave., $136,262; J. Bollin Co., 1259 Book Bldg., $137,957. Noted Aug. 18.

★**Mich., Detroit**—School—Bd. Educ., 1354 Bway., let contract building 3 story, 82 x 246 ft. and 113 x 130 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Brooklyn Ave., to O. Misch Co., 36 State St., $380,379. Noted Sept. 1.

★**Ill., Chicago**—Apartment—E. R. Peterson, c/o P. F. Olsen, archt., 127 North Dearborn St., let contract building 3 story, 100 x 125 ft., concrete, brick and stone, on Haskins Ave. near Jonquill Terrace, to J. Anderson & Co., 5723 Winthrop Ave. About $175,000.

★**Ill., Chicago** — Apartment — S. J. Schaeffer, 155 North Clark St., let contract building 6 story, 85 x 150 ft., rein.-con. and brick, rein.-con. flooring, on Kenmore and Balmoral Aves., to Waldman Contr. Co., c/o the owner. About $600,000. Noted Aug. 18.

★**Ill., Chicago**—Apartment—W. H. Wallis & Co. (owner's agents), 1456 Irving Park Blvd., let contract building 3 story, 127 x 197 ft., brick and stone, Irving Park Blvd. and Lowell Ct., to Welsh & McCarthy, 56 West Washington St. About $150,000.

★**Ill., Chicago** — Apartment — Hotel—Parkdale Hotel Co., c/o O. F. Mateer, 105 North Clark St., let contract building 3 story, 48 x 125 ft., brick and stone, fireproof construction, on Sedgewick and Garfield Aves., to A. Johnson, 5356 Belleplaine Ave. About $150,000. Noted Aug. 18.

★**Ill., Chicago** — Apartment Hotel — W. Strohm, c/o P. F. Olsen, archt., 127 North Dearborn St., let contract building 3 story, 60 x 125 ft., brick, concrete and terra cotta, on North Ashland St. and Jonquil Terrace, to Anderson & Co., 5723 Winthrop Ave. About $200,000.

★**Ill., Chicago** — Nurses Home — Augustanna Hospital Assn., 2043 Cleveland Ave., let contract building 4 story, 79 x 106 ft., brick and rein.-con., rein.-con. flooring, on Sedgewick and Garfield Aves., to E. P. Standberg, 111 West Washington St. About $300,000. Noted Aug. 18.

★**Ill., Chicago**—School—Bd. Educ., 650 South Clark St., let contract building 3 story, 78 x 220 ft., rein.-con., brick, steel and tile, on Douglas Blvd. and Lawndale Ave., to G. E. Carson Co., 155 North Clark St. About $400,000.

★**Ill., Chicago**—Temple—Logan Square Masonic Temple Assn., 1639 South Dearborn St., let contract building 4 story, 95 x 120 ft., rein.-con., brick and terra cotta, on Albany Ave. and Kedzie Blvd., to H. M. Friestedt Co., 327 South La Salle St. About $300,000. Noted April 21.

★**Ill., Evanston**—Bank—Central Savings Bank, c/o Mitchell Bros., 5 North La Salle St., Chicago, let contract building 1 story, 50 x 120 ft., rein.-con., brick and stone, rein.-con. flooring, to A. Finhaven, 139 North Clark St., Chicago. About $150,000. Noted July 28.

★**Ill., Kankakee**—Armory—E. D. Martin, archt., 304 South Wabash Ave., Chicago, let contract to J. Moroff & Son, Kankakee, building 2 story, 147 x 166 ft., brick and rein.-con., for the state, c/o Adjt. Gen. Dickson, Springfield. About $200,000. Noted Aug. 4.

★**Ill., Mooseheart** — Dormitory — Loyal Order of Moose, c/o R. H. Brandon, Mooseheart, will build 2 story brick and rein.-con. dormitory, at Home for Orphans, here. About $150,000. Work will be done by day labor.

★**Ill., Murphysboro** — School—Bd. Educ. let contract building 3 story, 60 x 200 ft., brick, steel and terra cotta, concrete foundation, to J. I. Gedney, Arcade Bldg., East St. Louis. About $150,000.

★**Ill., St. Charles**—Dormitory—St. Charles School for Boys plans to build 2 story, 104 x 112 ft., rein.-con. and brick. About $150,000. Work will be done by day labor.

★**Ill., Zeigler**—High Scho'l—Bd. Educ. let contract building 2 story, 76 x 109 ft. and 27 x 76 ft. additions, rein.-con., brick and stone, to Griffith Constr. Co., 314 Oak Park Ave., Oak Park. About $150,000. Noted Aug. 11.

★**Wis., Fountain City**—Community—City, c/o City clk., let contract building 2 story, 60 x 159 ft., rein.-con. and steel, brick foundation, to L. F. Schroeder, 93 7th St., Fond du Lac. Cost between $100,000 and $150,000.

★**Ia., Ft. Dodge**—High School — Bd. Educ., c/o C. A. Helsell, let contract building 2 story, 193 x 277 ft. high school, to Madsen & Peterson, Builders Exch. Bldg., Minneapolis, Minn. About $800,000.

★**Ia., Webster City**—School—Bd. Educ. let contract building 3 story, 164 x 173 ft., rein.-con., brick, stone and tile, to C. E. Atkinson, Ft. Dodge. About $175,000. Noted Aug. 11

★**Neb., Fremont** — Church — Methodist Episcopal Church let contract building 2 story, 60 x 115 ft. brick, stone and terra cotta, to T. Stark & Co., 1103 1st Ave. W., Cedar Rapids, Ia. About $150,000. Noted Aug. 18.

★**Neb., Omaha**—High School—Bd. Educ. let contract building 4 story, 210 x 240 ft., rein.-con and stone, on Burt and Cumings Sts., to F. P. Gould & Son, City Nat'l Bank Bldg., $2,297,000. Noted Aug 25.

★**S. D., Rapid City**—Court House and Jail—Pennington Co. let contract building 2 story, rein.-con., steel and brick, rein.-con. flooring, to A. Sugarman, 209 Masonic Bldg., Des Moines, Ia. About $600,000. Noted July 28.

★**Mo., Kansas City**—School—Bd. Educ., c/o J. B. Jackson, secy., let contract building Woodland School, 2 story, brick and stone on 8th and Woodland Sts., to Collins Bros. Constr. Co., Rialto Bldg., at $349,750.

★**Cal., Los Angeles**—Store—Fifth St. Dept. Store Co., 5th St. and Bway., let general contract building 12 story, brick and steel on 5th St. and Bway., to Weaver Constr. Co., Pacific Finance Bldg., structural steel, to U. S. Steel Products Co., 156 Central Ave. Noted April 7.

★**Que., Montreal**—School—Protestant Bd. School Comn., University St., let contract building 3 story, 180 x 235 ft., concrete, brick and steel, on St. Urbain Ave., to J. MacGregor, Ltd., 44 Closse St., $467,348.

★**Ont., Windsor**—Market—Winter & Little, 42 Pitt St. W., let general contract building 1 and 2 story, 50 x 180 ft., rein.-con., brick and steel, concrete foundation, on Ouellette St., to Windsor Constr. Co., 4 Victoria Rd., Walkerville, heating and plumbing, to Edwards Plumbing Co., 214 Church St. About $175,000.

Federal Government Work

PROPOSED WORK

Ind., Marion—Hospital—Treas. Dept. Wash., D. C., plans to construct, here. J. A. Wetmore, acting superv. archt.

Kan., Leavenworth — Hospital — Treas. Dept., Wash., D. C., plans to construct, here. J. A. Wetmore, acting superv. archt.

S. D., Hot Springs — Hospital — Treas. Dept., Wash., D. C., and Bd. Mgrs., Nat'l Home for Disabled Soldiers, c/o Gen. G. A. Wood, pres., Dayton, O., plans to build 3 story, brick, stone, rein.-con. or steel, here. About $250,000. Architect not selected.

BIDS DESIRED

Pa., Phila.—Addition to Boiler House, Etc.—Until Sept. 27, by Constructing Quartermaster, Quartermaster Intermediate Dept., constructing addition to boiler house, including plumbing, electrical and heating work, M-5 Factory, here; adv. in this issue.

Federal Government Work (Continued)

D. C., Wash.—Heating System—Spec. 4510—Until Sept. 14, by Bureau Yards & Docks, making alterations and additions, in Naval Hospital. Noted Sept. 1.

D. C., Wash.—Riprap—Until Sept. 17, by U. S. Engineer, 250 Old Land Office Bldg., furnishing and placing in sea-wall foundation, near Potomac Park, here; advertised in this issue.

Va., Yorktown—Cranes—Spec. 4509—Until Sept. 14, by Bureau Yards & Docks, Navy Dept., Wash., D. C., for 10-ton hand operated overhead traveling bridge crane, here. Noted Aug. 25.

Va., Yorktown—Power House, etc.—Spec. 4498—Until Sept. 14, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing power house, dispensary, concrete reservoirs and railroad sidings, here. Noted Aug. 25.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., New York—Dredging—Spec. 4505—Bureau Yards & Docks, Navy Dept., Wash., D. C. received bids dredging in Harbor, here, from F. E. Jones Dredging Co., Bank of Commerce Bldg., Norfolk, Va., $0.1987 (90 days); Morris-Cummings Dredging Co., 17 State St., New York City, $0.39. Noted Aug. 4.

Md., Annapolis—Ash Bunker, Power House Extension, etc.—Spec. 4487—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids building ash bunker, rein.-con., slate and copper, at Naval Academy, here; power house extension, concrete and brick, electric lighting system, and coal bunker, concrete, at Naval Hospital Reservation, here, (1) work complete, from D. M. Andrew Co., Mt. Vernon Ave., Baltimore, (1) $24,000, (2) $6,500, (3) $18,000 (120 days); Hicks, Tase & Norris, 106 West Madison St., Baltimore, (1) $24,655 (120 days), (2) $5,940 (60 days), (3) $18,715; J. L. Robinson Constr. Co., 130 West Lafayette Ave., Baltimore, (1) $25,517 (120 days), (2) $7,460, (3) $19,216. Noted Aug. 11.

Va., Norfolk—Gun Shed—Spec. 4475—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing 1 story, frame, metal skylights, at Marine Barracks Reservation, Navy Yard, here, from B. F. Wentz, Norfolk, $2,979 (50 days); J. B. Jeffress, Caddock, $3,250 (50 days); J. H. Pierce, Law Bldg., $3,274 (50 days). Noted Aug. 11.

★Va., Norfolk—Hospital—Treas. Dept., Wash., D. C., let contract constructing U. S. Public Health Service Hospital, here, to North Eastern Constr. Co., 101 Park Ave., New York City, $318,936. Noted Aug. 25.

★Va., Norfolk—Mechanical Equipment—Treas. Dept., Wash., D. C., let contract furnishing for U. S. Public Health Service Hospital, here, to J. R. Proctor, Inc., 120 Liberty St., New York City, $189,000. Noted Aug. 25.

Va., Norfolk—Quay Wall—Spec. 4491—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing section, at Navy Yard, here, (1) work complete, from Raymond Concrete Pile Co., 140 Cedar St., New York City, (1) $130,900 (210 days), (2) add $2,200, deduct $11.10, (3) add $0.50, deduct $0.15; H. P. Converse, 88 Broad St., Boston, (1) $141,600 (210 days), (2) add $36, deduct $8, (3) add $0.80, deduct $0.05; McLean Contg. Co., Fidelity Bldg., Baltimore, Md., (1) $144,750, (2) add $35, deduct $7, (3) add $0.85, deduct $0.17. Noted Aug. 25.

S. C., Charleston—Sprinkler System—Spec. 4490—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids for complete wet-pipe systems, automatic sprinklers, in Buildings 5, 7, 10, 13 and 1023, Navy Yard, here, (1) work complete, from Globe Automatic Sprinkler Co., 2035 Washington St., Phila., (1) $17,280 (120 days), (2) $13,525 (110 days), (3) $11,925 (100 days); Grinnell Co., North Charlotte, N. C., (1) $20,718 (130 days), (2) $15,936, (110 days), (3) $13,668 (110 days), (4) $2,458 (30 days); W. G. Cornell Co., Everett Bldg., Union Sq., New York City, (1) $23,000 (150 days), (2) $19,000 (130 days), (3) $16,450 (120 days), (4) $1,300 (20 days). Noted Aug. 11.

Fla., Lake City—Hospital—Treas. Dept., Wash., D. C., received bids constructing U. S. Public Health Service Hospital, here, from A. Bentley & Sons Co., Talleyrand Ave., Jacksonville, $125,00; Northwestern Constr. Co., Charlotte, N. C., $129,869; Wise Granite & Constr. Co., Inc., Amer. Natl. Bank Bldg., Richmond, Va., $143,300. Noted Aug. 4.

Fla., Lake City—Mechanical Equipment—Treas. Dept., Wash., D. C., received bids furnishing for U. S. Public Health Service Hospital, here, from W. G. Cornell Co., Natl. Bank of Commerce Bldg., Norfolk, Va., $77,700; W. Wilby, Selma, Ala., $79,973; Newport Contg. & Eng. Co., Silsby Bldg., Newport News, Va., $79,658. Noted Aug. 4.

Ill., Chicago—Reservoir—Treas. Dept., Wash., D. C., received bids for constructing complete (except mechanical equipment) reservoir, at Broadview U. S. Public Health Service Hospital 2, here, from J. J. Croake & Co., 2927 Fullerton Ave., $26,777; W. J. Newman Co., 21 North Curtis St., $29,000; Knowles & Fehr, 314 North Dearborn St., $30,759. Noted Aug. 18.

★Ill., Chicago—Roofing—Treas. Dept., Wash., D. C., let contract building roof on main building, Broadview Hospital, here, to L. Vandorp & Son, 509 Jackson St., Topeka, Kan., $24,418 (60 days).

Cal., Los Angeles—Dredging—U. S. Engineer, 725 Central Bldg., received bids dredging Los Angeles harbor on east side entrance of channel, here, from San Francisco Bridge Co., Nevada Bank Bldg., San Francisco, $0.1366 per cu.yd.; Los Angeles Dredging Co., Los Angeles, $0.1384; United Dredging Co., Central Bldg., $0.1638 and $0.1494. Noted Aug. 11.

Miscellaneous

PROPOSED WORK

Seawall—Barnegat, N. J.—State Dept. Commerce and Navigation, Trenton, plans to build concrete seawall, here. About $25,000. Address R. F. Engle, Beach Haven, member of Board.

Granite Coping,—Wash., D. C.—Bd. Public Bldgs. and Grounds, c/o C. O. Sherrill, 1729 New York Ave., soon receives bids, building, at reflecting pool, Lincoln Memorial. About $85,000.

Trenching Machine—Racine, Wis.—D. Nelson, 1133 Hamilton St., plans to purchase trenching machines.

Garbage Incinerator—Duluth, Minn.—City plans to build 2 story, 50 x 120 ft., rein.-con., steel and brick garbage incinerator, rein.-con. flooring, concrete foundation, on 16th Ave. W. and waterfront. About $100,000. E. K. Coe, city engr. Architect not selected.

Transmission Line—Bluff City, Kans.—City having plans prepared for transmission line from here to Anthony. About $25,000. W. B. Rollins & Co., Ry. Exch. Bldg., Kansas City, Mo., engrs.

Grain Elevator—St. Joseph, Mo.—Burrell Eng. & Constr. Co., 327 South La Salle St., Chicago, soon receives bids building 44 x 65 x 170 ft. rein.-con. grain elevator, here, for Chicago, Burlington & Quincy R.R., 547 West Jackson St., Chicago. About $200,000.

Grain Elevator—St. Louis, Mo.—Luehrman Hay & Grain Co., Main and Monroe Sts., plans to build grain elevator, brick and rein.-con. About $50,000. Engineer not selected.

Transmission Line—Crescent, Okla.—City, c/o A. B. Powell, clk., having plans prepared constructing transmission lines from here to Guthrie. About $25,000. W. B. Rollins, Ry. Exch. Bldg., Kansas City, Mo., engrs.

Lighting System, etc.—Charing Cross, Ont.—Raleigh Twp. plans to build electric lighting and power distribution systems to Louisville and Kent Center and one through southern part of township. About $60,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Lighting and Power Distribution System—London, Ont.—Twp. having surveys made for hydro lighting and power distribution system. About $50,000. J. N. Wilson, 190 University Ave., Toronto, engr.

BIDS DESIRED

Core Stone, etc.—Coney Island (Brooklyn P. O.), N. Y.—Until Sept. 28, by E. Riegelmann, pres. Brooklyn Boro, Boro Hall, for improvement and protection of beach, here, involving 30,000 ton core stone for jetties, 80,000 ton facing stone for jetties, 1,700,000 cu.yd. sand fill and 40,000 lin.ft. rein.-con. girder, etc.

Rails, etc.—Lackawanna, N. Y.—Until Sept. 12, by F. H. Burnett, age. South Buffalo Ry. Co., furnishing 200 gross ton 80 lb. A. S. C. E rails 33 ft. lengths; 50 gross ton 90 lb. A. S. C. E rails 33 ft. lengths; 100 pairs 24 in. angle bars for 80 lb. and 100 pairs 24 in. angle bars for 90 lb. A. S. C. E. rails, etc.

Cast Iron Pipe—Mendham, N. J.—Until Sept. 12, by Mayor and Common Council, at Fire House, Main St., furnishing about 40-ton hub and spigot c. i. water pipe and about 2,000-lb. hub and spigot special castings. L. Robinson, boro clk.; advertised in this issue.

Inorganic Dust—New York, N. Y.—Until Sept. 16, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and delivering 1,500 ton inorganic dust.

Conductor and Guard Rails—Phila. Pa.—Until Sept. 13, by Dept. City Transit, installing 500 ft. straight conductor rail, 100 ft. curved conductor rail, placing 65,000 ft. guard rail, 70 rail hangers, 500 ft. insulated covering, etc. H. H.Quimby, 1211 Chestnut St., ch. engr.

Fire Alarm System—Phillipsburg, Pa.—Until Sept. 17, by T. L. Horn, chn. Boro. Council, Moshannon Bank Bldg., installing one 25 box Gamewell fire alarm system.

Cranes, etc.—Stapleton, S. I., N. Y.—Until Oct. 4, by M. Hulbert, comr. Docks, Pier "A" foot of Battery Pl., North River, New York City, furnishing, installing and putting into successful operation, cranes, elevators, electric power transmission, and steam heating plants, on Piers 12 and 13, here, Contr. 1686.

Jetties-Rehoboth Beach, Del.—Until Sept. 15, by J. C. Palmer, chn. Committee, constructing 3 jetties; advertised in this issue.

Incinerators—Dallas, Tex.—Until Sept. 19, by M. G. James, city secy., constructing 4 incinerator plants, one to have 80 ton capacity with 4 furnaces, other three to have 40 ton capacity, each with 2 furnaces each. About $200,000. C. D. Fairtrace, city engr.

Breakwater—Cobourg, Ont.—Until Sept. 30, by R. C. Desrochers, secy. Dept. Pub. Wks., Parliament Bldgs., Ottawa, rebuilding south breakwater in Cobourg Harbor, precast concrete block construction. About $50,000. E. Lafleur, Parliament Bldgs., Ottawa, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Foundation — Gardner, Mass. — Town Hall Bldg. Com. let contract building concrete foundation for new memorial town hall on West Gardner St., to L. H. Shattuck, Inc., 208 Granite St., Manchester, N. H., $25,000. Total cost $350,000. Noted April 7 under "Buildings."

Heating and Ventilating Apparatus, etc.—Newton (Flushing P. O.) **N. Y.**—R. W. Rodman, supt. Plant Operation of School Bldgs. of Bd. Educ., Municipal Bldg., New York City, opened bids Sept. 2, installing (1) heating and ventilating apparatus, (2) temperature regulating apparatus, etc., in Newtown High School on Etna Pl., Gerry Ave., Chicago and Parcell Sts., here, from Gillis & Geoghegan, 537 West Bway., New York City, (1) $89,434; J. C. Williams, Inc., 233 Bway., New York City, (1) $91,474; Raisler Heating Co., 129 Amsterdam Ave., New York City (1) $91,000; Bishop & Babcock, 376 Lafayette St., New York City, (2) $6,500; Natl. Regulator Co., 166 Lexington Ave., New York City, (2) $7,383. Noted Aug. 25.

★Swimming Pool—Huntington, W. Va.—State Bd. Control, Charleston, let contract constructing 2 swimming pools, heating and lighting new gymnasium, at Marshall College, here, to Brockway Plumbing & Supply Co., Huntington, $34,000. Former contract rescinded. Noted Aug. 25.

Swimming Pool, etc.—Wakefield, Mich.—City received lowest bid building concrete and brick swimming pool and foundation for memorial building, from Albinson Constr. Co., 717 Nicollet Ave., Minneapolis, Minn., $36,500.

★Breakwater—Racine, Wis.—Lake Shore Protection Co., c/o H. Basinger, Racine Co. clk., let contract building 2,100 lin. ft. pile and timber breakwater along Lake Michigan in Mt. Pleasant Twp., to Taylor Bros. Dredge & Dock Co., Hubbard Woods, Ill., $14.25 per. lin. ft. Noted Aug. 25.

Gravel—New Orleans, La.—State Highway Dept. received bids furnishing 13,931 cu.yd. washed gravel and 27,761 cu.yd. sand clay gravel, from J. W. Thompson, Canal Commercial Bank Bldg., $81,456, Pelican Gravel Co., LeCompte, $82,277. Amer. Brick Co., Isabel, $82,581.

★Car Barns — Toronto, Ont. — Toronto Transportation Com., Ryrie Bldg., let contract building 1 story, 140 x 350 ft. rein.-con., brick and steel car barns, on Danforth and Coxwell Aves., to Wells & Gray, Confederation Life Bldg., cost $235,000; also 1 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation on St. Clair Ave. and Yonge St., general contract, to Jackson Lewis Co., Ryrie Bldg., steel to Dominion Bridge Co., Imperial Life Bldg., etc. Total cost $220,000.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 19	Boonton, N. J. Adv. Sept. 15.	Sept. 15
Sept. 19	Long Island City, N. Y.	Sept. 15
Sept. 19	St. George, S. I., N. Y.	Sept. 15
Sept. 20	Springfield, Ill.	Sept. 15
Sept. 23	Forest, O.	Sept. 15
Oct. 7	Collinsville, Ill. Adv. Sept. 1 to 15.	Sept. 1

SEWERS

Sept. 16	Austin, Minn. Adv. Sept. 1 to 15.	Sept. 1
Sept. 19	Hamilton, Ont.	Sept. 1
Sept. 19	Akron, O.	Sept. 15
Sept. 20	Garfield, N. J.	Sept. 1
Sept. 20	Kendallville, Ind.	Sept. 8
Sept. 24	Monticello, N. Y. Adv. Sept. 15.	Sept. 15
Oct. 3	Brownville, N. Y. Adv. Sept. 15.	Sept. 15
Oct. 4	Clifton, N. J.	Sept. 8
Oct. 4	Toledo, O. Adv. Sept. 8 and 15.	Sept. 15

BRIDGES

Sept. 17	Trenton, N. J. Adv. Sept. 8 and 15.	Sept. 15
Sept. 19	Bronxville, N. Y. Adv. Sept. 1 to 15.	Sept. 8
Sept. 19	Indiana	Sept. 15
Sept. 20	North Carolina	Sept. 8
Sept. 21	Morristown, N. J.	Sept. 8
Sept. 21	Denville, N. J. Adv. Sept. 8 and 15.	Sept. 8
Sept. 22	Akron, O.	Sept. 1
Oct. 2	Sauk City, Wis.	Sept. 15

EXCAVATION AND DREDGING

Sept. 19	Cape Girardeau, Mo.	Sept. 8
Sept. 19	Trenton, Mo.	Sept. 8
Sept. 20	Waseca, Minn.	Sept. 8
Oct. 4	Trenton, N. J. Adv. Sept. 8 and 15	Sept. 8
Oct. 4	Boise, Idaho	Sept. 15

STREETS AND ROADS

Bids Close		See Eng. News-Record
Sept. 19	Clarksville, Tex.	Aug. 25
Sept. 19	California	Sept. 8
Sept. 19	Los Angeles, Cal.	Sept. 15
Sept. 19	Cameron, Tex.	Sept. 15
Sept. 19	Eldora, Ia.	Sept. 15
Sept. 20	Alabama	Sept. 8
Sept. 20	Danville, Ky. Adv. Sept. 8 and 15.	Sept. 8
Sept. 20	Lexington, S. C.	Sept. 8
Sept. 20	North Carolina	Sept. 8
Sept. 20	New Orleans, La.	Sept. 1
Sept. 20	St. Louis, Mo.	Sept. 8
Sept. 20	Ottawa, Ill.	Sept. 15
Sept. 20	Yates Center, Kan.	Sept. 15
Sept. 20	Springfield, Ill.	Sept. 15
Sept. 20	Des Moines, Ia.	Sept. 15
Sept. 20	Chester. Pa.	Sept. 15
Sept. 21	Warrentown, Va.	Sept. 15
Sept. 21	New York, N. Y.	Sept. 15
Sept. 21	Brooklyn, N. Y.	Sept. 15
Sept. 22	Livingston, Tex.	Sept. 15
Sept. 22	Grand Haven, Mich.	Sept. 15
Sept. 23	Madison, W. Va. Adv. Sept. 15.	Sept. 15
Sept. 23	Missouri	Sept. 15
Sept. 24	La Grange, Tex.	Sept. 15
Sept. 26	California	Sept. 15
Sept. 27	New Orleans, La.	Sept. 1
Sept. 27	Amite, La.	Sept. 8
Sept. 27	Minnesota	Sept. 15
Sept. 27	Pennsylvania Adv. Sept. 8 and 15.	Sept. 15
Sept. 28	Maplewood, Mo.	Sept. 8
Sept. 30	Emporia, Kan.	Sept. 8
Sept. 30	Troy, Kan.	Sept. 8
Oct. 3	Klamath Falls, Ore. Adv. Sept. 8 and 15.	Sept. 8
Oct. 3	Harrisonburg, La.	Sept. 8
Oct. 4	Minnesota	Sept. 15
Oct. 7	Belleville, Kan.	Sept. 8
Oct. 11	Leavenworth, Kan.	Sept. 8
Oct. 13	Weehawken, N. J.	Sept. 15
Oct. 14	Belleville, Kan.	Sept. 15
Oct. 17	Alabama	Sept. 15

INDUSTRIAL WORKS

Sept. 22	Kingston, Ont.	Sept. 15
Sept. 26	Madison, Wis.	Sept. 8

BUILDINGS

Sept. 19	Venice, O.	Sept. 8
Sept. 19	Hamden, Conn.	Sept. 15
Sept. 20	Detroit, Mich.	Aug. 25
Sept. 20	Salisbury, Md.	Sept. 8
Sept. 20	Mahanoy City, Pa.	Sept. 15
Sept. 20	Sulphur, Okla.	Sept. 15
Sept. 20	Cresson, Pa.	Sept. 15
Sept. 20	Champaign, Ill.	Sept. 15
Sept. 21	New York, N. Y.	Sept. 15
Sept. 22	St. Louis, Mo.	Sept. 8
Sept. 22	Warrensville, O.	Sept. 1
Sept. 22	Cranston, R. I.	Sept. 8
Sept. 23	Manhattan, Kan.	Sept. 8
Sept. 23	Rutherford, N. J.	Sept. 8
Sept. 24	Victory, B. C.	Sept. 15
Sept. 24	Hamilton, Ont.	Sept. 15
Sept. 24	Camden, N. J.	Sept. 8
Sept. 25	Betterton, Md.	Sept. 8
Sept. 26	Cheyenne, Wyo.	Sept. 1
Sept. 27	Ann Arbor, Mich.	Sept. 8
Sept. 27	Des Moines, Ia.	Sept. 8
Sept. 28	Rochester, N. Y.	Sept. 8
Sept. 30	Shelton, Conn.	Sept. 8
Sept. 30	Memphis, Tenn.	Sept. 15
Oct. 4	Pineville, La.	Sept. 15
Oct. 24	Cleveland, O.	Sept. 8
Feb. 1	Williamsport, Pa.	Sept. 8

FEDERAL GOVERNMENT WORK

Sept. 17	Riprap—Wash., D. C. Adv. Sept. 8 and 15.	Sept. 8
Sept. 19	Dredging—Detroit, Mich. Adv. Aug. 25 to Sept. 15.	Aug. 25
Sept. 21	Machine Shop—Pearl Harbor, H. T.	Aug. 11
Sept. 21	Refrigerating Plant—Dawson Springs, Ky.	Sept. 15
Sept. 22	Emergency Dams — Seattle Wash.	Aug. 11
Sept. 26	Hydraulic Dredge — Phila., Pa. Adv. Sept. 1 to 15.	Sept. 1
Sept. 27	Addition to Boiler House, etc. —Phila., Pa. Adv. Sept. 8 and 15.	Sept. 8
Sept. 28	Power Plant Impvts.—Annapolis, Md.	Sept. 8
Sept. 28	Dispensary—Wash., D. C.	Sept. 15
Sept. 30	Gate Locks and Valves—Rock Island, Ill. Adv. Sept. 8 and 15.	Sept. 8
Sept. 30	Entrances—Wash., D. C.	Sept. 15
Oct. 4	Refrigerating Plant—Key West, Fla.	Sept. 15
Oct. 6	Alterations to Post Office, etc.—Springfield, Mo. Adv. Sept. 15.	Sept. 15

MISCELLANEOUS

Sept. 19	Incinerators—Dallas, Tex.	Sept. 8
Sept. 21	Incinerator — Brooklyn, N. Y.	Sept. 15
Sept. 28	Core Stone, etc.—Coney Island (Brooklyn P. O.) N. Y.	Sept. 8
Sept. 28	Crane—New York, N. Y. Adv. Sept. 1 to 15.	Sept. 1
Sept. 30	Breakwater—Coburg, Ont.	Sept. 8
Sept. 30	Tunnel—Seattle, Wash.	Sept. 8
Oct. 4	Cranes, etc.—Stapleton, S. I., N. Y.	Sept. 8
Oct. 4	Dragline Machine—Greenville, Miss. Adv. Sept. 15.	Sept. 15

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Me., Auburn — City having plans prepared for building and equipping brick and steel pumping station. F. E. Bissbee, chn. Sawyer & Bean, 11 Lisbon St., Lewiston, engrs.

Me., Sebago Lake—Portland Water Dist., Portland, plans to build main water conduit here. G. W. Graham, Portland, genl. mgr.

W. Va., Elkins—City voted $45,000 bonds for filtration plant, $40,000 for sedimentation tanks, $9,000 for pumps, motors and electrical equipment, $2,200 for intake, $14,000 for water mains, $7,500 for reservoir, $7,300 for miscellaneous expenses. Noted Aug. 18.

Tenn., Nashville—City plans election to vote on $1,800,000 bond issue for waterworks improvements. Work include c.i. force mains, $384,500; booster station, $55,000; additional storage, $114,000; filteration plant, $652,150; repairs to reservoir, $238,000; extension and lateral water mains, $300,000; boilers and mechanical equipment, $91,900. S. H. McKay, City Hall, secy. Bd. Pub. Wks.

O., Barberton—City plans election to vote on $450,000 bonds to install water mains. H. W. Alcorn, City Hall, engr.

O., West Park—See "Sewers."

O., West Park—City election Nov. 9 to vote on $200,000 bonds to build 24 in. c.i. mains. J. Reitz, City Hall, engr.

Ill., Hampshire—City having plans prepared for waterworks. About $25,000. A. L. Webster, Wheaton, engr.

Ill., Washburn—City plans to build waterworks. About $30,000. C. E. De Leuw, 111 West Washington St., Chicago, engr.

Mo., Fairfax—City having plans prepared building waterworks. Bonds for $35,000 voted for project. E. T. Archer & Co., New England Bldg., Kansas City, engrs. Noted Aug. 4.

Waterworks (Continued)

Mo., Portageville—City plans to build waterworks, including pumps, tower, tanks, pipe line, etc. About $40,000. A. C. Moore, Joplin, engr.

Okla., Hobart — City plans to extend waterworks. About $100,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Okla., Red Fork—City election soon to vote on $19,000 bonds to improve waterworks. Engineer not selected.

Ont., Dundas—Town soon receives bids building 10,000 lin.ft. 6 in. mains in Dundas, York, Witherspoon, Park, Hatt, McNab, Bond and South Sts. About $30,000. C. R. Murdock, Dundas, engr.

Ont., Georgetown—Town plans to extend waterworks, including new c.i. pipe, centrifugal pumps, and addition to pumphouse. About $60,000.

Ont Ottawa—City plans to build ½ mi. of 51 in. water mains in Wellington St. About $135,000. A. F. McCallum, City Hall, engr.

BIDS DESIRED

N. Y., Brownville—See "Sewers."

N. Y., Long Island City—Until Sept. 19, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, hauling and laying water mains in Ely and Review Aves. and Hamilton St., 1st Ward; Mansion Pl., 2nd Ward; Clinton Ave., 18th, 123rd, 129th, 156th, 157th, 159th, 162nd, 206th and 248th Sts. 3rd Ward, here.

N. Y., S. I., St. George—Until Sept. 19, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, hauling and laying water mains in Clinton, Arden, Catlin, Finley, Division, Grandview, Greeley, Highland, Lyman, Marion, Oder, Seymour, Pommer, Sharon, Vedder, Vernon, Villa, Willow and Wilson Aves., Chelsea, Garden, Hillcrest, Loretta, Prospect and Purdy Sts., Annadale, Belair, Four Corners, Great Kills, Helena and Mill Rds., also Hooker Pl., here.

N. J., Boonton—Until Sept. 19, by Mayor and Bd. Aldermen, at Aldermanic Chambers, Main St., furnishing and erecting steel water tank, 1,000,000 gal. capacity. A. P. Smith, 716 Main St., clk.; advertised in this issue.

O., Forest—Until Sept. 23, by A. F. Bartledt, clk. Bd. Trustees of Pub. Affairs, building waterworks system, involving 143.7 ton 6 and 8 in. c.i. pipe, laying 20,050 lin.ft. 4-6 in. pipe, 50,000 gal. steel tank on 100 ft. tower, etc. G. Champe, Toledo, civil engr.

Ill., Springfield—Until Sept. 20, by city, laying 4 and 6 in. c.i. mains in Hay St. About $25,000. W. Seeley, City Hall, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

N. Y., Buffalo—City received bids furnishing (1) 6,240 ft. 20 in. high pressure c.i. pipe, (2) fittings, from R. D. Wood & Co., 400 Chestnut St., Phila., (1) $37.85 per net ton of 2,000 lb., (2) $130 per net ton, F.O.B. Buffalo; U. S. Cast Iron Pipe & Fdry. Co., 957 East Ferry St., (a) per ton, (b) per foot, Class G 1.39 in., (1a) $45.80, (1b) $7.37, Class F 1.27 in., (1a) $45.80, (1b) $6.57, Class F 1.23 in., (1a) $45.80, (1b) $6.34, Class F 1.18 in., (1a) $45.80, (1b) $6.24, standard specials, $0.05 per lb., special castings with lugs, $0.06 per lb., pipe cast with lugs, $15 per ton additional, all F.O.B. Buffalo; Central Fdry. Co., 90 West St., New York City, (1b) $7.80, (2) $0.08 per lb.

★Md., Baltimore—Bd. Awards, City Hall, let contract building 7,000,000 gal. capacity balancing reservoir, to T. Mullan, Greenmount Ave. and 40th St., $45,285.

★O., Sidney—City let contract extending water mains, to L. I. Stark, Cuyahoga Falls, $40,030. Noted Aug. 11.

★Mich., Detroit—Water Bd. let contract furnishing four 400 hp. boilers, to Wickes Boiler Co.; 512 North Water Co., Saginaw, $36,187; 4 underfeed stokers, to Amer. Eng. Co., Aramingo and Cumberland Sts., Phila., $22,995. Noted Sept. 1 under "Miscellaneous."

★Mich., Detroit—Water Bd. let contract furnishing 1,500 ton 8 in. c.i. water pipe, to Lynchburg Fdry. Co., Lynchburg, Va., $41.85 per ton, $62,775.

★Ill., Farmington—City let contract laying 4 to 6 in. water mains, and erecting water tank, 60,000 gal. capacity, etc., to R. P. Keuhn, Farmington. About $27,000. Noted May 12.

★Wash., Port Townsend—City let contract tunneling and draining lake for storage reservoir, 100,000,000 gal. capacity, work involves 410 ft. tunnel through rock, to O. Olson, Maple Valley, $16,775.

★Que., Montreal — City let contract furnishing 100 ton 20 and 24 in. c.i. pipe, to Canada Iron Foundries, Ltd., Victoria Sq., $58,50 per ton of 2,000 lb.

Sewers

PROPOSED WORK

N. J., North Bergen (Weehawken P. O.) —Township plans to build surface and sanitary sewerage system also new sewage disposal plant at Hackensack Meadows. About $2,000,000. Cost to be borne by Township and property owners. T. Harmon, North Bergen, engr.

Md., Baltimore—Baltimore Co. plans to build sewerage system and disposal plant at Towson.

O., West Park—City had plans prepared building sewers and water mains in Normandy, Belmar, Ernadale, Lauerdale, Silverdale, Derby, West 158th and West 159th Sts., involving 7,500 ft. 12-15 in. vitr. and 1,000 ft. 8 in. c.i. pipe. About $40,000. W. H. Evers, 1048 Engineers Bldg., Cleveland, engr.

Ill., Kenilworth—City having plans prepared for storm sewerage system. About $72,000. J. C. Murray, clk. Windes & Marsh, 598 Birch St., Winnetka, engrs.

Ill., Winnetka—Indian Hill Improvement Dist. having plans prepared for 10-16 in. sewers, 4-6 in. water pipe and reservoir. About $25,000. Windes & Marsh, 598 Birch St., engrs.

Ia., Lake Mills—City plans to build sanitary and storm sewers in various streets. About $40,000. C. P. Smith, Estherville, engr.

Mo., St. Louis—City soon receives bids building vitr. clay sewer in Manchester Sewer Dist. 2. About $26,350. E. R. Kinsey, chn. Bd. Pub. Serv. Engineer's name withheld. Noted April 21.

Okla., Hobart—City plans to build sewage disposal plant. About $25,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Ont., Owen Sound—City plans to build storm sewers. About $60,000. Prices wanted on all materials. C. Gordon, City Hall, engr.

Ont., St. Thomas—City plans election in January to vote on $40,000 bonds to build storm sewers in Talbot St. W. Miller, City Hall, engr.

BIDS DESIRED

N. Y., Brownville—Until Oct. 3, by Bd. Trustees, constructing sanitary sewerage and waterworks systems. W. T. Field, 40 Flower Bldg., Watertown, consult. engr.; advertised in this issue.

N. Y., Monticello—Until Sept. 24, by Bd. Sewer Comrs., at office of C. H. Ebinger, village clk., constructing 38,000 sq.ft. new sand filters with concrete walls, etc. Tribus & Massa, 15 Park Row, New York City, consult. engrs.; advertised in this issue.

O., Akron—Until Sept. 19, by Director Pub. Serv., building 5,760 ft. trunk sewer in South Arlington St. Dist., involving 4,630 ft. 30-60 in. rein.-con., vitr. brick or segmental block, 6,000 ft. 8-24 in. vitr. tile block and 250 cu.yd. concrete. About $102,000. J. E. Root, Delaware Bldg., engr.

O., Akron—Until Sept. 19, by Director Pub. Serv. constructing Northside Intercepter Sewer, involving 6,450 ft. 24 in. vitr. pipe, cost $59,820; Little Cuyahoga Intercepter Sewer, involving 2,550 ft. 57 in. vitr. brick or segmental block, 3,000 ft. 6-24 in. vitr. tile block and 200 cu.yd. concrete, $103,669. J. E. Root, Delaware Bldg., engr.

O., Toledo—Until Oct. 4, by C. A. Benedict, dir. Pub. Serv., 225 Valentine Bldg., constructing sewage pumping station and appurtenances. Fuller & McClintock, 170 Bway., New York City, engrs.; advertised in this issue.

Ill., Springfield—Until Sept. 20, by city, laying 10-12 in. glazed sewers in Bond Ave. About $25,000. W. Seeley, City Hall, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., let contracts building sewers in Strong St. to Seaside Contg. Co., Seaside, $59,263; 13th St., to Booth & Flinn Ltd., 17 Battery Pl., New York City, $842,000; Marion St., 16th Ave. and Nostrand Pl., to J. F. Clancy, Inc., 460 Lockwood St., $931, $3,351 and $1,760 respectively. Noted Sept. 8.

N. J., Princeton—Boro. received bids building sewage treatment plant, from Genl. Constr. Co., Trenton, $37,500; J. Boscarella 110 2d St., Trenton, $38,300; Karno-Smith Co., Trenton, $39,235. Noted Jan. 13.

★O., Barberton—City let contract building main and lateral vitr. sewers in Central and North Barberton Sts., to W. H. Hunt, 518 Metropolitan Ave., Akron. About $95,000.

★O., Tippecanoe City—C. H. Paul, asst. ch. engr. Miami Conservancy Dist., Dayton, let contract building 4th St. Intercepter Sewer, here, involving 2,100 ft. 36-60 in. concrete pipe, to J. C. Mercer & Sons, Piqua. About $45,000. Noted Aug. 25.

★Mich., Detroit—City let contracts to C. R. Lennane & Co., Union Trust Bldg., constructing Lateral 3393, cost $20,035; Detroit Drainage Constr. Co., 827 Ford Bldg., Lateral 3427, $2,974; Liberty Constr. Co., Detroit Savings Bank Bldg., Lateral 3500, $29,800, Lateral 3505, $7,890, Lateral 3507, $4,719; R. D. Baker, 1631 Elmhurst Ave., Lateral 3509, $2,375; Western Constr. Co., 1208 Ford Bldg., Lateral 3514, $45,646; H. Fortuna, 4422 St. Aubin St., Lateral 3512, $3,150. Noted Sept. 1.

Mich., Detroit—City received bids building (1) Sect. 2 Highland Park Arm Sewer, (2) Sect. 5 Jos. Campau Sewer, (3) Sect. 5 Bates St. Sewer, (4) Sect. 3 Gratiot Ave. Sewer, (5) Marquette Ave. Arm Sewer, (6) Van Dyke Ave. Sewer, from

J. Porath, 34 McGraw Bldg., (1) $242,848.

J. Bollin Co., 1259 Book Bldg., (1) $246,411.

Lennane & McIlvenna, 1205 Book Bldg., (1) $238,935.

Brandon & Hanna, 1624 Dime Bank Bldg., (2) $397,101.

Jaynes & Affeld, 1208 Ford Bldg., (2) $227,004, (3) $298,522.

J. A. Mercier, 216 Hammond Bldg., (2) $331,335, (3) $293,452, (4) $82,039, (6) $61,669.

W. Blanck & Co., 827 Ford Bldg., (3) $301,137, (4) $103,786, (5) $65,861, (6) $61,640.

R. D. Baker, 1631 Elmhurst Ave., (4) $97,605.

R. A. Mercier, 6 Campau Bldg., (5) $67,590.

C. M. Davis, Penobscot Bldg., (5) $69,978.

Connelley Bros., 610 Lincoln Bldg., (6) $61,651. Noted Aug. 18.

★Ill., Morton—City let contract building storm drain sewerage system, Dist. 1, to W. O. Anns, Havana, $25,184. Noted Sept. 1.

★Wis., Evansville—City let contract laying vitr. sanitary and storm sewers in Main and Elm Sts., to E. W. Leisman, Main St., Ft. Atkinson. About $25,000.

★Ia., Rock Rapids—City let contract laying 10-16 in. galvanized sewers, to R. L. Cox, Webster City, $29,342. Noted Aug. 18.

Minn., St. Cloud—City opened bids Aug. 26, building sewers in Impvt. Dist. 547, involving 8,284 ft. 10-18 in. vitr. pipe, 2,865 ft. 18-36 in. segment block, 53 catch basins, 970 ft. catch basin connections 33 manholes, etc., from E. T. Webster, 437 Beacon Ave., St. Paul, $39,799; Pastoret Constr. Co., 308 Sellwood Bldg., Duluth, $39,928; Haggart Constr. Co., 60 Bway., Fargo, N. D., $45,253.

★Mo., St. Louis—City let contract building 547 ft. 9 in. circular outlet sewer in Hodiamont Ave. Sewer Dist. 1, Letting 1218, to A. Lewald, 5947 McPherson St. About $25,756. Noted Aug. 18.

Cal., East San Diego—City received bids laying 29.11 mi. lateral sewers involving (a) 92,689 ft. of 6 in. vitr. clay pipe, (b) 60,343 ft. 8 in. cement pipe, (c) 541 ft. 6 in. c.i. pipe, (d) 132 ft. 8 in. c.i. pipe, (e) 6,550 6 in. "Y" branches, (f) 4,257 8 in. "Y" branches, (g) 45 cu.yd. concrete, (h) 443 concrete manholes, (i) 54 concrete flush tanks, from B. B. Boyd, East San Diego, (a) $1.25, (b) $1.34, (c) $1.80, (d) $2.50, (e) $1.05, (f) $1.75, (g) $20, (h) $70, (i) $110, total $249,879; G. R. Daley, McNeece Bldg., San Diego, (a) $1.56, (b) $1.81, (c) $1.40, (d) $1.80, (e) $1, (f) $1, (g) $45, (h) $68, (i) $140, total $303,197.

Sewers (Continued)

Cal., Burbank—City received bids constructing sewerage system (a) cement pipe, (b) vitr. pipe, from R. J. Gillespie, 1537 Mariposa Ave., (a) $54,082, (b) $54,784; J. S. Reynolds, Los Angeles, (a) $54,217, (b) $53,863; Fleming Constr. Co., 105 North Park St., Pomona, $55,099. Noted Aug. 11.

★Cal., Los Angeles—City let contract building sewers in 23rd St. Sewer Dist., to S. Zarubica, 3006 6th Ave., $61,000; in 52d St. Sewer Dist. to B. Deragno, 1614 South Hill St., $105,436. Noted Sept. 8. Bldg.

★Ont., London—City let contract building sewage pump house, to J. Hayman & Sons, 432 Wellington St.; furnishing pumps, to London Concrete Mchy. Co., Cabell Ave. Total cost about $60,000.

Bridges

PROPOSED WORK

Tex., Orange—Orange Co. having revised plans prepared constructing concrete abutments and steel truss spans over Sabine River. About $200,000. Westcott Eng. Co., 111 West Washington Blvd., Chicago, engrs.

Wash., Pasco—Inter County Bridge Co., Walla Walla, soon receives bids building 3,236 ft. toll bridge, 20 ft. roadway, across Columbia River from here to Kennewick. About $400,000. M. M. Caldwell, ch. engr. Noted Aug. 25.

BIDS DESIRED

N. J., Trenton—Until Sept. 17, by Joint Comn. for Elimination of Toll Bridges over Delaware River between New Jersey and Pennsylvania, 125 West State St., Trenton, constructing steel floor system with asphalt pavement, to bridge over Delaware River, between here and Morrisville, Pa. L. Focht, engr.; advertised in this issue.

Indiana—Until Sept. 19, by L. E. Lyons, dir. State Highway Comn., Capitol Bldg., Indianapolis, repairing 164 ft. steel truss over Flat Rock, Decatur Co., 55 ft. steel truss over Turkey Creek, Lake Co., three 169 ft. steel trusses over White River, Morgan Co., four 50 ft. steel trusses with plank flooring over White Water River (West Fork), Fayette Co., 115 ft. steel truss over Symonds Creek, Wayne Co., one 8 ft. and one 10 ft. rein.-con. culvert, Howard Co.

Wis., Sauk City—Until Oct. 7, by State Highway Comn., State Capitol Annex, Madison, building Sauk City Bridge on State Trunk Highway 12 over Wisconsin River between here and Roxbury, to have 10 fixed spans each 84 ft. long, 1 approach span 70 ft. long and one 80 ft. lift span to give clear opening of 70 ft., total over all length 995 ft., 20 ft. roadway, 6 ft. sidewalk. Work involves 2,436 cu.yd. concrete, 586 ton structural and 36 ton reinforcing steel, 3 ton track plates, 174 sq.yd. creosoted wood block pavement, etc. M. W. Torkelson, Madison, bridge engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★N. Y., Castleton—Town of Schodack let contract building rein.-con. bridge to replace present 120 ft. iron bridge, near here, to C. P. Boland & Co., 30 4th St., Troy.

★New Jersey — State Highway Dept., Broad St. Bank Bldg., Trenton, let contract building 2 small concrete bridges, on Route 12, Sect. 8, Passaic and Warren Counties, to S. S. Thompson, Inc., 111 Chestnut St., Red Bank, $25, 663. Noted Aug. 25.

★N. J., Perth Amboy—State Highway Dept., Broad St. Bank Bldg., Trenton, let contract repairing Amboy Bridge over Raritan River, between here and South Amboy, to G. Wickberg, 130 Catalpa Ave., $65,207. Noted Sept. 1.

★N. J., Secaucus—Bergen Co. (Hackensack) and Hudson Co. (Jersey City) let contract repairing piles of bridge over Hackensack River, here, to Linde & Griffith Contg. Co., 4th Ave., Newark, $36,459.

★N. J., Trenton—Bd. Freeholders Mercer Co. let contract building 250 ft. steel and concrete drawbridge, 32 ft. wide, 60 ft. towers, on Southard St., to Brann & Stuart Co., Commercial Trust Blg., Phila, $162,-213. Noted Aug. 25.

O., Cleveland—Cuyahoga Co. opened bids Aug. 24, building (1) concrete substructure, (2) steel superstructure for lift bridge over Cuyahoga River, on Alexander Rd., from T. B. Husband, 3166 Redwood Ave., (1) $41,350; E. Gedney, Addison Rd., (1) $42,315; King Bridge Co., East 69th St., (2) $22,570. Noted Aug. 11.

★Kan., Marysville—Marshall Co. let contract constructing Gregg Bridge, 40 ft. deck girder Clear Fork Bridge, 60 ft. steel span, to Westover Steel & Iron Co., 19th and West Sts., Lincoln, Neb. About $25,000. Noted Aug. 25.
MISC—

Tex., Comanche—Comanche Co. received bids constructing concrete and steel bridges, including 1 over Rush Creek and 1 over Leon River on Highways 18 and 22, involving 2,212.3 cu.yd. Class A and 518.5 cu.yd. Class B concrete, 210,621 lb. reinforcing and 138,600 lb. structural steel, 1,772 cu.yd. structural excav., etc., from Harris & Powell, Tyler, $76,912; A. Murphy & G. B. Fisher, c/o G. B. Fisher, Blandlake, $91,206; Illinois Steel Bridge Co., Box 351, Dallas, $91,737.

★Wash., Kelso—State Highway Comn., Olympia, let contract building 722 ft. steel structure over Cowlitz River and grading approaches to Ocean Beach Highway, to Pacific Bridge Co., Tacoma, $228,800.

★Wash., Seattle—City let contract building ½ mi. trestle on 1st Ave. S., involving 45,000 lin.ft. wooden piling and 560,000 ft. lumber, to Hansen & Hauge, 105 North 84th St., $31,790.

★B. C., North Vancouver—Municipalities of North and West Vancouver let contract building 120 ft. Howe truss span, 16 ft. wide, on Marine Drive, to Nickson Constr. Co., 739 Hastings St., Vancouver, $26,826.

★Mont., Missoula—Northern Pacific R.R., 5th and Jackson Sts., St. Paul, Minn., let contract building 235 ft. steel bridge, 60 ft high, over Stout Creek, here, to H. C. Struchen, 405 Dakota Bldg., St. Paul. About $100,000.

Dams

PROPOSED WORK

★N. H., Salem—Arlington Mills, 78 Chauncy St., Boston, let contract building 880 ft. earth dam with rein.-con. core wall, 55 ft. high, also about 2 mi. gravel roadway, grubbing, clearing and other miscellaneous work, here, to H. P. Cummings Constr. Co., 14 Prospect St., Ware, Mass. About $250,000. Noted Mar. 3 under miscellaneous.

Excavation and Dredging

PROPOSED WORK

Ill., Robinson — Drainage — Drainage Comn., c/o M. D. Reed having plans prepared for drainage system, involving excavation and concrete work. About $150,-000. E. F. Mail, Robinson, engr.

Mont., Red Lodge—Irrigation—Rosebud Irrigation Dist. having plans prepared for irrigating 12,000 acres, involving one 6 x 6-6 in. tunnel, 1,320 ft. 1-150 and 2,700 ft. 1-80 C.F.S. pressure pipe, etc. About $300,-000.

BIDS DESIRED

Idaho, Caldwell—Canal—Until Oct. 4, by Bd. Directors Pioneer Irrigation Dist., excavating about 4,500 lin. ft. canal, 42 ft. wide, Sects. 20 and 21, Twp. 4 north. F. L. Evans, secy. Noted Dec. 7.

Utah, Salt Lake City—Excavating—B. P. O. E., Lodge 85, South State St., receiving bids excavating for foundation for 5 story, 83 x 147 ft., rein.-con. and brick club on East South Temple St. Total cost about $300,000. Scott & Welch, Dooly Bldg., archts.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Wis., Price—Drainage—Price Co. Farm Drainage Assn. let contract excavating and laying 6-18 in. tile drain in D. D. 1, to Wisconsin Drainage Co., Elkhorn. About $26,000.

★Wis., Sheboygan—Drainage—Sheboygan Co. Drainage Bd. let contract excavating and laying 8-16 in. tile drain in Farm D. D. 6, to Lake Shore Drainage Co., Cedar Grove; tile, to Cedar Grove Concrete Products Co., Cedar Grove. Total cost $26,495.

★Ia., Mt. Ayr—Excavation—Ringgold Co. let contract building 3 mi. new channel, Platte River D. D. 2, involving 273,000 cu.yd. excav., to O. P. Herrick, Observatory Bldg., Des Moines, $0.1088 per cu.yd. Noted Aug. 18.

★Minn., Redwood Falls—Ditch—Redwood Co. let contracts building Co. Ditch 54, to A. Telford, Marshall, $27,341 labor for Co. Ditch 66, to Reinertson & Patterson, Springfield, $8,769; labor for Co. Ditch 70, to J. Slattery, Greenville, Ia., $9,500. Noted Aug. 11.

Streets and Roads

PROPOSED WORK

Pa., Ebensburg—H. T. Jones, controller Cambria Co., opens bids about Oct. 17, building 10,780 ft. Cresson Pike from Munster to Cresson, vitr. brick, asphalt, bituminous concrete, waterbound macadam, bituminous macadam or any other hard surface material. About $75,000. H. F. Dorr, Trust Bldg., engr.

West Virginia—State Highway Comn., Charleston, plans to build roads in various counties. Bond issue of $50,000,000 voted for project. First contract will be let this fall. G. H. Hill, 311 Broad St., Charleston, office engr. of State Rd. Comn., will supervise construction.

N. C., Hickory—City plans to pave 10,000 sq.yd. 17th St. from 16th Ave. to city limit, probably bitulithic. About $30,000. R. G. Henry, city mgr.

Fla., Chipley—City having plans prepared laying sidewalks, curbs and gutters and paving various streets. About $100,-000. J. Boyd, c/o State Highway Dept., Montgomery, Ala., engr.

Alabama — State Highway Dept., Montgomery, plans to grade, drain and gravel surface 8 mi. road from Warrior River to Jefferson Co. line, Walker Co. About $150,000. W. S. Keller, state highway engr.

Ill., Hinsdale—City having plans prepared paving various streets, vitr. brick on concrete base. About $27,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Milan—City having plans prepared paving various streets, vitr. brick on concrete base, concrete curb and gutter. About $60,000. W. Treichler, Court House, Rock Island, engr.

Ill., Olney—City having plans prepared paving various streets with concrete. About $50,000. J. S. Haine, clk. E. A. Phillips, Olney, engr.

Ia., Charles City—Floyd Co. plans to pave 6 mi. road between Rockford and Nora Springs. About $150,000. G. H. Elliott, Charles City, engr.

Ia., Waterloo—City plans to pave about 6 blocks Lyndale and Oakland Aves. About $30,000. A. E. Gnagy, clk.

Minn., Breckenridge—City plans to pave about 7 blocks 8th St. N. from Minnesota to Bede Aves. and 5th St. from New York to Bede Aves. About $25,000. P. E. Truax, acting clk.

Kan., Minneapolis—Ottawa Co. had plans prepared constructing 1 mi. J. H. Boyle Highway, 18 ft. wide, concrete, continuation of Federal Aid Project 49. About $45,000. L. R. Miller, Minneapolis, engr.

Missouri—State Highway Dept., Jefferson City, plans to build 3.27 mi. state road from Dell to Hickory Co. line, State Aid Project 20.9, Benton Co., involving 14,408 cu.yd. earth and 250 cu.yd. rock excav., 108.3 cu. yd. Class B and 3.2 cu.yd. Class C concrete, etc., cost $15,727; 3,023 mi. state road from Sarcoxie westward, State Aid Project 20.89, Jasper Co., 8,061 cu.yd. earth and 100 cu.yd. rock excav., 2,562 cu.yd. borrow, 122.8 cu.yd. Class B concrete, etc., $8,544; 1.638 mi. state road from Sedalia southward State Aid Project 20.91, Pettis Co., 6,242 cu.yd. earth and 500 cu.yd. rock excav., 694 cu.yd. borrow, 2.1 cu.yd. Class A and 152.8 cu.yd. Class B concrete, etc., $11,491; 4.091 mi. state road from Urbana southward, State Aid Project 20.84, Dallas Co., 18,914 cu.yd. earth excav., 696 cu.yd. borrow, 203.1 cu.yd. Class B and 7.2 cu. yd. Class C concrete masonry, etc., $16,040; 4.811 mi. state road from Fayette northward, State Aid Project 20.93, Howard Co., 41,452 cu.yd. earth and 110 cu.yd. rock excav., 699 cu.yd. borrow, 199.3 cu.yd. Class B and 17 cu.yd. Class C concrete, $27,552. A. Graham, state highway engr.

Missouri—State Highway Dept., Jefferson City, plans to build 4.01 mi. state road from Winona westward, State Aid Project 20.92, Shannon Co., involving 29,097 cu.yd. earth and 10 cu.yd. rock excav., 1,353 cu. yd. borrow, 179.5 cu.yd. Class B and 14.4 cu.yd. Class C concrete, etc. About $25,277. A. Graham, state highway engr.

Streets and Roads (Continued)

Missouri—State Highway Dept., Jefferson City, plans to build 7,026 mi. state road from Lebanon northward, State Aid Project 20.83, Laclede Co., involving 46,866 cu.yd. earth and 20 cu.yd. rock excav., 917 cu.yd. borrow, 38.2 cu.yd. Class B and 3.6 cu.yd. Class C concrete masonry, etc. About $31,398. A. Graham, state highway engr.

Mo., Eminence—Shannon Co. having plans prepared grading and draining 2½ mi. roads, 18 ft. wide. About $26,000. W. S. Murray, Sikeston, engr.

Mo., St. Genevieve — St. Genevieve Co. having plans prepared grading and paving primary roads. About $28,000. W. S. Murray, Sikeston, engr.

N. D., Fargo—City having plans prepared paving various streets in Dist. 1, vitr. brick on concrete base. About $300,000. B. T. Jacobson, Fargo, engr.

N. D., Fargo—City having plans prepared paving various streets, Dist. 2, vitr. brick on concrete base. About $250,000 B. T. Jacobsen, Fargo, engr.

N. D., Fargo—City having plans prepared paving various streets in Dist. 3, brick on concrete base. About $25,000. B. T. Jacobsen, Fargo, engr.

Tex., Crockett—Houston Co. rejected bids received Aug. 27, grading, surfacing and draining 13.73 mi. State Highway 21. Cost $114,014 including 10% for engineering and contingencies. Work will be readvertised. Noted Aug. 18.

Okla., Ada—City plans to pave Mississippi Ave. from Main St. to Frisco R.R., involving 89,000 sq.yd. 7 in. plain concrete. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs.

Col., Denver—City plans to curb and grade 60 blocks, 30 ft. wide, concrete, Impvt. Dist. 30. Cost $84,173. J. B. Hunter, City Hall, engr.

Ont., Windsor—City plans to widen Sandwich St. About $200,000. M. E. Brian, City Hall, engr.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 21, by E. Riegelmann, boro pres., Boro Hall, regulating, grading and paving, etc., Ocean Ave. from Voorhies to Emmons Aves., asphalt on 6 in. concrete foundation; grading portion of lot on northeast corner of Winthrop St. and Nostrand Ave.; regulating and repaving 1st Ave. from 52nd to 53rd Sts., granite on 6 in. concrete foundation; regulating and curbing west side of 7th Ave. from 77th to 78th Sts.

N. Y., New York—Until Sept. 21, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., regulating and repaving 2nd Ave. curb to rail from 4th to 5th Sts., 3½ in. white oak block on concrete foundation, Grove St. from 7th Ave. to Bleecker St., 5th Ave. from 90th to 98th Sts., East 70th St. from 3rd to 5th Aves., East 71st St. from 1st to Park Aves., sheet asphalt on concrete foundation; regulating, reregulating, grading and paving, etc., Haven Ave. from West 169th to West 170th Sts., sheet asphalt on concrete foundation.

N. J., Weehawken—Until Oct. 13, by Bd. Freeholders Hudson Co. (Jersey City), paving ⅞ mi. Hackensack Plank Rd. from Hudson Blvd. to Gregory Ave. here and West Hoboken, granite block on concrete foundation. About $178,000. F. J. Radigan, Court House, Jersey City, engr.

Pennsylvania—Until Sept. 27, by State Highway Dept., Harrisburg, rebuilding roads in Armstrong, Beaver, Butler, Cameron, Chester, Clarion, Crawford, Cumberland, Erie, Fayette, Indiana, Jefferson, Lackawanna, Lawrence, Mifflin, Schuylkill, Westmoreland, and Wyoming Counties. L. S. Sadler, Comr.; advertised in this issue.

Pa., Chester—Until Sept. 20, by City Council, paving Howard St. from 24th to Mowry Sts., Ward St. from 2nd to 3rd Sts., Ward St. from 3rd to 4th St., Butler St. from 9th to Concord Sts., 8th St. to 215 ft. east of Barclay St., Crosby St. to 253 ft. south of 3rd St., paving, grading, etc. Hayes St. to 200 ft. north to 4th St. Work involves 6,740 sq.yd. vitr. brick, wood block or asphalt and 4,426 sq.yd. concrete base. C. G. Warrilow, City Hall, engr.

Va., Warrenton—Until Sept. 21, by State Highway Dept., at office Clerk, Fauquier Co., paving 4.03 mi. Midland Rd. between Auburn and Casanova Rds., 12 ft. wide, waterbound macadam. C. E. Bolling, Richmond, state highway engr.

W. Va., Madison—Until Sept. 23, by Clk. Boone Co., grading 4.2 mi. state road between Clothier and Ramage, Washington Dist. R. G. Gartner, co. rd. engr.; advertised in this issue.

Alabama—Until Oct. 17, by W. S. Keller, state highway engr., Montgomery, grading, draining and surfacing with gravel 14.67 mi. Decatur-Tuscumbia Rd. between Tuscumbia and Lawrence Co. line, Colbert Co., involving 14.67 mi. clearing and grubbing, 61,968 cu.yd. common excav., 500 lin.ft. 18 in. and 82.5 lin.ft. 24 in. pipe, 217.03 cu. yd. Class A and 111.3 cu.yd. Class B concrete, 18,319 lb. reinforcing steel, 34,437 cu. yd. gravel surfacing, etc.

Mich., Grand Haven—Until Sept. 22, by State Highway Dept. at office Bd. Rd. Comrs. Ottawa Co., grading and draining 4.56 mi. State Trunk Line Rd. 16-5, involving 36,741 cu.yd. excav. F. F. Rogers, Lansing, state highway comr.

Ill., Ottawa—Until Sept. 20, by city, paving various streets, portland cement on concrete base. About $60,000. G. L. Farnsworth, city engr.

Ia., Des Moines—Until Sept. 20, by A. E. McGlothlem, city clk., surfacing West 5th St. from University to College Aves., asphalt on concrete base; paving and resurfacing West 31st St., concrete and asphalt. About $35,000 and $25,000 respectively. K. C. Kastberg, city engr.

Ia., Eldora—Until Sept. 19, by city, paving streets, involving 30,000 sq.yd. pavement and 8,500 lin.ft. curb and gutter. About $120,000. Price & McCormick, 215 Security Bldg., Des Moines, engrs.

Minnesota—Until Sept. 27, by State Highway Dept., 920 Guardian Life Bldg., St. Paul, improving 5.65 mi. State Project 10-37, east of Wayzata, Hennepin Co., involving 84,638 cu.yd. excav., etc.; 4.3 mi. State Project 10-38, between Maple Plain and Long Lake, Hennepin Co., 57,049 cu.yd. excav. About $25,000 and $26,000 respectively. Noted July 7.

Minnesota—Until Oct. 4, by State Highway Dept., 920 Guardian Life Bldg., St. Paul, improving State Project 22-21 between Gaylord and Norseland, Sibley Co., involving 132,000 cu.yd. excav., etc.; also building Bridge 3,669, 35 ft. deck span on rein.-con. abutments. About $40,000. C. M. Babcock, state highway engr.

Kan., Belleville—Until Oct. 14 (change of date) by Comrs. Republic Co., grading, draining and building bridges on 8.6 mi. Belleville-Rydal-Scandia Rd., Sects. A, C and D, Federal Aid Project 92. About $64,000. G. O. Gunnels, co. engr. Noted Sept. 8.

Kan., Yates Center—Until Sept. 20, by city grading, paving, concrete curbing and guttering various streets, brick on concrete base. About $50,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Missouri—Until Sept. 23, by State Highway Dept., dir. office, Paris, building 2.38 mi. state road from Paris westward, State Aid Project 20.86, Monroe Co., cost $15,357; 1.82 mi. state road from Paris northeastward, State Aid 20.47, Monroe Co., $14,413; 1.53 mi. state road from Paris southward, State Aid Project 20.85, Monroe Co., $7,233. A. Graham, Jefferson City, state highway engr. Noted Sept. 8.

Tex., Cameron—Until Sept. 19, by W. C. Gellis, judge Milam Co., grading, surfacing and draining 8.21 mi. State Highway 44, involving 5.6 acres clearing and grubbing, 43,636 cu.yd. borrow and 24,437 cu. yd. roadway excav., 545.8 cu.yd. 1:2:4 concrete, 23,200 lb. structural and 51,502 lb. reinforcing steel, 15,388 cu.yd. schist. Cost $56,875. A. F. Mitchell, co. engr.

Tex., La Grange—Until Sept. 24, by J. F. Ehlinger, judge Fayette Co., grading, gravel surfacing and draining 7.29 mi. State Highway 3-B, involving 14,868 cu.yd. borrow, 16,217 cu.yd. roadway, 1,601 cu.yd. structural, and 22,668 cu.yd. loose rock excav., 1,266.9 cu.yd. 1:2:4, 84 cu.yd. 1:2½:5 and 22 cu.yd. 1:3:6 concrete, 108,224 lb. reinforcing steel, 17,109 cu.yd. gravel surfacing to be furnished by county. Cost $123,550. A. Schlafli, Schulenburg, co. engr. Noted Mar. 24.

Tex., Livingston—Until Sept. 22, by E. T. Murphy, judge Polk Co., grading, gravel surfacing and draining 9.7 mi. State Highway 35, involving 60.8 acres clearing and grubbing, 107,789 cu.yd. borrow and 39,933 cu.yd. roadway excav., 1,441.9 cu.yd. 1:2:4 concrete, 20,508 cu.yd. gravel surfacing. Cost $264,369. W. C. Youngs, co. engr.

California—Until Sept. 26, by State Highway Comn., 515 Forum Bldg., Sacramento, paving 10.7 mi. highway, Imperial Co., asphaltic concrete; grading 9.3 mi. highway between Fairville and east boundary, Sonoma Co. A. B. Fletcher, state highway engr.

Cal., Los Angeles—Until Sept. 19, by Bd. Pub. Wks., paving and laying curbs and sidewalks on Hoover St., involving 541,000 sq.ft., 6 in. concrete.

Ont., Simcoe—Town and Norfolk Co. receiving bids building concrete highway on Colborne St., 24 ft. wide. About $90,000. G. R. Marston, Simcoe, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★New Hampshire—State Highway Dept., Concord, let contract improving state highway in Derry, bituminous macadam, to J. F. Watkins, Powow St., Amesbury, Mass. About $25,000.

★N. H., Manchester — City let contract repairing various streets with bituminous macadam, to Winslow & Cummings, Nashua. About $30,000.

★Vermont—State Highway Comn., Montpelier, let contract building 2,500 ft. North Clarendon Rd., Rutland, 50 ft. wide, concrete, to P. C. Ricci, Rutland. About $40,000.

★Massachusetts—Dept. Pub. Wks., Highways, Boston, let contract building 2,300 ft. bituminous macadam highway in Wrentham, to Canedy Constr. Corp., New Bedford $10,186; gravel highway in Burlington, to Sweeney Motor Truck & Constr. Co., 165 Bway, Everett, $3,936; 2,000 ft. bituminous macadam highway in Holbrook, to Powers Bros., 163 North Montello St., Brockton, $9,843; gravel surfacing 1,525 ft. highway in Rutland, to A. Palladino, Newton Highlands, $6,252.

★Mass., Fitchburg—City let contract paving, curbing, etc., several streets, concrete and asphalt, to H. P. Cummings Constr. Co., 14 Prospect St., Ware. About $40,000.

★Mass., Framingham—Town let contract paving 2,400 ft. highway, 18 ft. wide, bituminous concrete, to C. Bianchi, Framingham. About $25,000.

★Conn., Waterbury—City let contract for concrete and asphalt pavement on North Main St., to C. W. Blakeslee & Sons, 58 Waverly St., New Haven, $32,000; asphalt pavement on Central Ave., Baldwin, Charles, Porter and Johnson Sts., to E. Tracy, 200 Olivia St., Derby, $35,000.

★New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, let contract improving 0.46 mi. Highway 5377A, Broome Co., to A. Yesu, Binghamton, $14,281; 2.61 mi. Highway 807A, Cortland and Chenango Counties, to Lane Constr. Corp., 37 Colony St., Meriden, Conn., $78,336; 2.91 mi. Highway 1574, Livingston Co., to Lathrop, Shea & Henwood Co., 428 Ellicott Sq., Buffalo, $140,646; 6.99 mi. Highway 8072, Ontario and Wayne Counties, to J. H. Corbett, Jr., Baldwinsville, $203,272; reconstructing 1.26 mi. Rep. Contr. 1333, Albany Co., to Municipal Constr. Co., Utica, $23,198; 3.53 mi. Rep. Contr. 3004, Albany Co., to J. P. Dugan & Co., Inc., Amsterdam, $106,536; 1.63 mi. Rep. Contr. 3005, Hamilton Co., to P. Morford, Fultonville, $26,680; 4.87 mi. Rep. Contr. 3006, Jefferson Co., to Smith Bros. Constr. Co., Watertown, $140,868; 4.39 mi. Rep. Contr. 3011, Monroe Co., to W. E. Kinney & Co., Rochester, $77,387; 4.55 mi. Rep. Contr. 3019, Oneida Co., and 6.47 mi. Rep. Contr. 3009, Steuben Co., to Dale Eng. Co., Mann Bldg., Utica, $137,784 and $101,951 respectively; 2 mi. Rep. Contr. 1320, Ontario Co., to G. B. Dickison, Union Bldg., Syracuse, $27,123; 1.1 mi. Rep. Contr. 3003, Rensselaer Co., to D. S. McGrath Co., Adams, Mass., $37,244; 2.29 mi. Rep. Contr. 3001, Suffolk Co., to R. W. S. Corp., New York City, $28,142; 1.76 mi. Rep. Contr. 3008, Ulster Co., to A. C. Kleisch Co., Haverstraw, $54,941; 1.28 mi. Rep. Contr. 3013, Westchester Co., to Fleming, O'Brien & McEntegart, Inc., New York City, $43,904; 2.65 mi. Rep. Contr. 3016, Wyoming Co., to J. M. Murray, Leroy, $52,434. Noted Sept. 1.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Sept. 9, regulating and repaving (1) Crescent St., granite block on concrete foundation, (2) Metropolitan Ave., (3) 5th St., (4) Louona Ave., (5) 1st Ave., sheet asphalt on concrete foundation; regulating and grading, etc., (6) Arcadia Ave., (7) 5th St., (8) Ely Ave.; curbing and laying sidewalks, on (9) Halett St., regulating and paving (10) Concordia St., granite block on concrete foundation, laying sidewalks on (11) 46th St., from

C. A. Myers Contg. Co., Stagg St. and Morgan Ave., Brooklyn, (1) $2,790, (8) $9,910, (10) $1,930.

Welsh Bros. Contg. Co., 32 Queens St., Astoria, (1) $2,967, (6) $1,954, (7) $19,635, (8) $9,479, (9) $7,466, (10) $2,313.

F. J. Clancy, Corona, (1) $3,195, (6) $1,-

Streets and Roads (Continued)

770, (7) $18,851, (8) $10,030, (9) $8,272, (10) $2,565, (11) $2,980.

W. P. McDonald Constr. Co., 17 West 42d St., New York City, (2) $92,700, (3) $39,209, (5) $14,271.

Sicilian Asphalt Paving Co., 41 Park Row, New York City, (2) $100,142, (3) $38,015, (4) $4,919, (5) $13,434.

Cleveland Trinidad Paving Co., Flushing, (2) $104,228, (3) $36,692, (5) $13,991.

Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (2) $104,398, (3) $35,315, (4) $6,548, (5) $13,149.

R. A. Hess, Inc., 14 Queens St., Astoria, (6) $1,825, (9) $7,750, (11) $2,610.

Kennedy & Smith, 93 Amity St., Flushing, (9) $7,916, (10) $2,835, (11) $3,175.

H. E. Kordes & Co., Inc., 2577 Cooper St., Brooklyn, (10) $2,340.

Peace Bros., Inc., 20 Main St., Flushing, (7) $24,277.

Noted Sept. 1.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, opened bids Sept. 6, regulating, grading, etc. Rockaway Blvd. from New York Ave. to Nassau Co. line, from A. Paino, 2016 East 14th St., Brooklyn, $273,380; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $279,000; H. E. Kordes Co., 2577 Cooper St., Brooklyn, $360,000. Noted Sept. 8.

★**N. J., Elizabeth**—Bd. Freeholders Union Co. let contract improving 1½ mi. Park and Martine Aves., 20 ft. wide, asphalt, to Redfern & Lepre Co., 30 Church St., South Orange, $63,611.

N. J., Jersey City—City received bids paving Clerk St. between Bramhall Ave. and Forest St., Union St. between Clerk St. and Arlington Ave., Monticello Ave. between Bramhall and Communipaw Aves., Union St. between Ocean Ave. and Clerk St., sheet asphalt on present stone block, from Willite Rd. Constr. Co., 51 Chambers St., New York City, 90% of engineers estimate ($27,670); W. T. S. Critchfield, 14th St., Hoboken, 92%; Clinton Asphalt Paving Co., 306 Charles St., West Hoboken, 99%.

★**N. J., Trenton**—City let contract repaving Pennington and North Clinton Aves., to Ross & Whepan, Broad St. Bank, $75,172. Noted Aug. 11.

★**Pa., Phila.**—City let contracts paving Point Breeze Ave., to Lolove & Lewis, Real Estate Trust Bldg., $45,000; Germantown and Greys Ferry Aves., to Eastern Paving Co., Colonial Trust Bldg., $38,000 and $61,315 respectively; Front St., to Ryan Constr. Co., Real Estate Trust Bldg., $65,000; 49th St., to Barber Asphalt Paving Co., Land Title Bldg., $73,324; Robbins St., to Curtiss Bros., Longshore Ave., $50,711; Nedro Ave., to A. Anderson, 25th and Kensington Aves., $6,231. Noted Aug. 4.

Pa., Phila.—City received bids Sept. 9, improving (1) City Line Ave., (2) Cobbs Creek Parkway, (3) 24th, Baltz, Harper, Perot and Taylor Sts., (4) Susquehanna Ave., Bellmore, Hancock, Norris, Okney and Orleans Sts., (5) Butler, Airdrie, Carey and Phillips Sts., (6) Hazzard, Huntingdon, and Smedley Sts., (7) 43rd and 68th Sts., (8) Oregon Ave., (9) 56th St., (10) 42nd and 50th Sts., (11) 25th and 22nd Sts., (12) 23rd and 27th Sts., (13) 17th St., (14) Greenwood Ave. and Marlborough St., (15) 6th St. from Wharton to South Sts., (16) 6th St. from Vine to South Sts., (17) 10th St., (18) Green and 2nd Sts., (19) Filbert and 20th Sts., (20) 9th and 23rd Sts., (21) Hicks, Mole and Ranstead Sts., (22) Frankford Ave., (23) Fisher Ave., (24) Beaumont and Litchfield Aves., (25) Saul and Pratt Sts., from

Union Paving Co., 37th and Spruce Sts., (1) $17,600, (2) $33,913, (3) $11,690, (4) $32,745, (5) $37,461, (6) $11,122, (7) $11,792, (10) $19,372, (11) $34,173, (12) $37,542, (13) $22,652, (16) $61,573, (17) $67,872.

Barber Asphalt Paving Co., Land Title Bldg., (1) $18,990, (2) $38,743, (3) $12,873, (4) $32,965, (5) $37,965, (6) $12,372, (7) $12,652, (8) $13,054, (9) $14,614.

Eastern Paving Co., Colonial Trust Bldg., (1) $19,743, (2) $36,527, (3) $13,562, (4) $31,000, (5) $35,894, (6) $12,162, (7) $11,474, (8) $14,348, (9) $16,816, (10) $18,995, (11) $33,967, (14) $18,718.

F. T. Buckins, Kensington and Deal Sts., (10) $18,826, (11) $33,530, (14) $19,392, (18) $14,633.

Ryan Constr. Co., Real Estate Trust Bldg., (12) $36,000, (13) $20,088, (15) $36,260, (16) $60,226, (17) $67,419, (18) $14,807, (20) $13,651.

Mack Paving & Constr. Co., Nicetown Lane and C St., (12) $36,901.

Fish-Rutherford, Inc., Real Estate Trust Bldg., (15) $36,963, (16) $62,532, (17) $67,963, (19) $15,286, (20) $13,872, (21) $9,481, (22) $27,133.

United Paving Co., Real Estate Trust Bldg., (18) $14,394, (20) $12,158, (21) $10,133.

McLaughlin & Flood, 81st and Suffolk Sts,. (22) $26,044.

Brown-King Constr. Co., Real Estate Trust Bldg., (22) $26,561.

J. J. McHugh, 1617 Race St., (23) $3,956, (24) $753.

D. MacMahon, Germantown and Chelten Aves., (23) $7,178.

F. Mark Contg. Co., Commercial Trust Bldg., (23) $7,265.

T. P. Lee, 5629 Cherry St., (24) $996.

T. Connor, 3329 North 5th St., (25) $21,215.

M. J. McMenamin, Commercial Trust Bldg., (25) $30,325. Noted Sept. 1.

★**Virginia**—State Highway Comn., Richmond, let contracts paving with waterbound macadam 4.42 mi. Project 135, Orange Co. and 7.9 mi. State Rd. 12 between Galax and Woodlawn, Project 123, Carroll Co., to C. S. Luck, 1212 Brook Ave., Richmond, $76,000 and $150,000 respectively; 12.91 mi. State Rd. 12 between Jacksons Ferry and Hillsville, Project 111, Carroll Co., to Albert Bros., Shawsville, $160,000; 6.71 mi. State Rd. 22 between Salem and Catawba, Project 110, Roanoke Co., to Baughan & Draper, Roanoke, $64,000. Noted Aug. 18.

★**North Carolina**—State Highway Comn., Raleigh, let contract grading, shaping and paving with penetration macadam 3 mi. Summerville-Rockingham Rd., Guilford Co., to R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh. About $45,000.

★**North Carolina**—State Highway Dept., at div. office, Marion, let contract grading, draining and surfacing 4.97 mi. State Project 505, Mitchell Co., to Fiske-Carter Constr. Co., Greenville, $158,540, 7.2 mi. State Project 571, McDowell Co., to J. W. Stapp Constr. Co., Rome, Ga., $34,328; grading and topsoiling 6.55 mi. State Project 547, Rutherford Co., to Michanx Contg. Co., Albemarle, $31,000; clearing, grubbing, draining, grading and topsoiling 10.05 mi. State Project 572, McDowell Co., to L. J. Smith Constr. Co., Charlotte, $151,882; building bridges and culverts on State Project 572, McDowell Co., to W. F. Taylor Constr. Co., Wilsonville, Ala., $22,212. Noted Sept. 1.

★**N. C., Mebane**—City let contract paving various streets with sheet asphalt, to R. Lassiter Co., Oxford. About $150,000.

Alabama — State Highway Dept., Montgomery, received bids grading, draining and surfacing with gravel or sand-clay 11.008 mi. Butler-Meridian Rd. from Butler to Lisman, from J. R. and J. B. Miller, Baconton, Ga., $91,348; Gough, Pigford & Charles, Russell, Miss., $94,099; Moore, Hunt & Sellers, La Grange, Ga., $94,888. Noted Aug. 18.

★**O., Akron**—Dept. Pub. Serv. let contract to Columbus Asphalt Paving Co., 708 2nd Natl. Bldg., improving South Main St. from Crosier St. to south line Lot 14 Steiner allotment, involving 3,200 sq.yd., sheet asphalt (Texaco), etc., at $1.68 per sq.yd., total cost $19,341; to T. E. McShaffrey Constr. Co., Forge St., Sprankle Ave. from Pork Ave. to Crosier St., 1,000 sq.yd. sheet asphalt (Pl. B) Trinidad, $2.05, $5,975, also King St. from Power to Cross Sts., 1,390 sq.yd. standard brick pavement, etc., $2.05, $8,825; to Burk & Kalain, Whittier Ave. from Madison to Storer Sts., 900 cu.yd. cinders, etc., $0.80, $5,610.

★**O., Canton**—Stark Co. let contract paving 1.99 mi. Massillon-Millersburg Rd., involving 17,340 sq.yd. vitr. brick, 27,464 cu.yd. earth excav. and 18,496 sq.yd. concrete base, to G. W. Hadley, Canton, $81,000; 1.4 mi. Osnaburg-Mapleton Rd., 13,553 sq.yd. 3 in. bituminous asphalt macadam, etc., to Culbertson & Casper, 806-3rd St., S. W., $29,366; 0.95 mi. Brewster Village, 8,982 sq.yd. vitr. brick on concrete base, and 1,915 cu.yd. earth excav., etc., to Urban Bros., Massillon, $31,000.

O., Cleveland—Bd. Educ., East 6th St. and Rockwell Ave., received bids improving school grounds including 8,000 yd. grading, draining, brick and stone walks and retaining wall, etc., from G. E. Peterson Co., 18215 Euclid Ave., $65,230; C. N. Griffin, 5511 Euclid Ave., $66,000.

★**O., Cleveland**—City let contract grading, draining, curbing and paving Hyde Ave. and West 15th Pl., to Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., $25,412; paving East 73rd St. and Filo Ave., to Rieley Bros., The Arcade, $8,575 and $4,888 respectively; East 133rd and East 111th Sts., to Enterprise Paving & Constr. Co., 8444 Bway., $12,350 and $6,460 respectively; West 97th St., to Garland Bros. Co., c/o Pavers Exch., $7,340; Vineyard Ave., to J. C. Fischer, Lorain Rd., $17,470; resurfacing Superior Ave., asphalt, to Cleveland Trinidad Paving Co., The Arcade, $66,078. Noted Sept. 8.

★**O., Cleveland**—Cuyahoga Co. let contract grading, curbing and paving West Madison Ave., to Cleveland-Trinidad Paving Co., The Arcade, $305,900. Noted Sept. 8.

O., Cleveland—Cuyahoga Co. received bids improving various streets, involving 13,650 cu.yd. earth excav., 5,200 cu.yd. concrete, 4,550 cu.yd. concrete base and 30,000 sq.yd. waterbound macadam, etc., from Lake Erie Paving Co., Society for Savings Bldg., $100,434; Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria, $100,950.

★**O., East Cleveland** (Cleveland P. O.)—City let contract paving Elm Ave., to Gould & Maybeck, 823 East 150th St., Cleveland, $7,006; Belmar and Glenmont Aves., to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $29,123. Work involves 7,500 sq.ft. vitr. brick, 1,800 sq.ft. asphalt and 2,100 cu.yd. excav.

★**Mich., Detroit**—City let contracts to Reading Corp., 413 West Fort St., paving Alley 1332, cost $4,619, Alley 1331, $4,206, Alley 1338, $2,977.

G. Nunn, 6409-3rd Ave., Alley 1323, $1,597, Alley 1326, $4,799, Alley 1329, $1,754, Alley 1333, $2,297, Alley 1335, $4,089, Alley 1336, $2,829, Alley 1339, $2,831.

F. Porath, Jr., 305 Free Press Bldg., Alley 1324, 1,308.

T. E. Currie, 20 McGraw Bldg., Alley 1325, $5,402, Alley 1328, $4,949.

A. F. Lester, 309 Sun Bldg., Alley 1327, $1,860, Alley 1330, $3,206, Alley 1334, $2,218.

DeLisle & Cooper, 402 Ford Bldg., Alley 1332, $3,515.

Otis Cement Constr. Co., 806 Hammond Bldg., Alley 1337, $4,120.

Detroit Asphalt Paving Co., 20 McGraw Bldg., Albert Ave., $11,955, Baker St., $13,551, Canfield Ave., $28,637, Centerline Ave., $31,821, Dwight Ave., $2,332, Ferry Ave., $7,301, Gibson Ave., $10,954, Marcus Ave., $17,933, Dexter Ave., $90,420.

Cleveland Trinidad Paving Co., 402 Hammond Bldg., Linwood Ave., $22,272, Tyler Ave., $23,746, Waverly Ave., $23,386. Noted Sept. 8.

★**Mich., Detroit**—City let contract to Detroit Asphalt Paving Co., 20 McGraw Bldg., surfacing Palmer Ave., cost $9,150, Superior St., $5,124, Hale St., $9,150; to Cleveland Trinidad Paving Co., 402 Hammond Bldg., 12th St., $21,960. Noted Sept. 1.

★**Mich., Kalamazoo** — State Highway Dept. at office Bd. Rd. Comrs. Kalamazoo Co. let contract grading, draining and surfacing 0.644 mi. State Trunk Line Rd. 17-8, involving 4,269 cu.yd. excav., 7,360 sq.yd. concrete, to Meredith & McVaugh, Tecumseh, $26,014.

★**Ill., Lanark**—City let contract paving various streets, brick on concrete base, to Gund-Graham & Co., 304 Crum & Foster Bldg., Freeport, $25,375. Noted Aug. 11.

★**Ill., Pontiac**—Livingston Co. let contract paving various road, bituminous macadam on concrete base, to C. Upham, Odell. About $55,000.

★**Ill., West Frankfort**—City let contract paving various streets, brick and asphalt on concrete base, to Cole & Farber, Herrin. About $130,000. Noted Aug. 25.

★**Wis., Elkhorn**—City let contract paving, curbing, guttering and building sidewalks on 1.1 mi. Main St., 1 course rein.-con., to McGucken Constr. Co., 425 East Water St., Milwaukee. About $32,000.

★**Wis., Janesville**—City let contract paving, curbing, guttering and building sidewalks on 1 mi. Hickory and Glenn Sts., 1 course concrete, to J. Cape & Sons, 468 Water St., Racine, $29,519; 1½ mi. on Racine, Fremont, Clark and Blackhawk Sts., to Gund-Graham Co., Freeport, Ill., $45,726. Noted Sept. 8.

Wis., Sheboygan—City received bid paving, curbing, guttering and building sidewalks on .7 mi. Michigan and 13th Sts., 2 course rein.-con., from F. Radloff, Main St., Plymouth, $26,185.

Streets and Roads (Continued)

★**Ia., Allison**—Butler Co., let contract grading and draining 11 mi. Primary Rd. Project 71, involving 110,132 cu.yd. earth and 2,134 cu.yd. loose rock excav., 83,927 lin.ft. 6 in. and 9,800 lin.ft. 8 in. tile, etc., to Littig Constr. Co., 50 First Natl. Bank Bldg., Davenport, $0.32 per cu.yd. for earth, $1.75 for loose rock and $2.50 for solid rock excav. Noted Aug. 25.

★**Ia., Waterloo** — Black Hawk Co. let following contracts grading and draining 7 mi. Primary Rd. Project 164, from Waterloo north, involving 63,893 cu.yd. excav. and 60,554 lin.ft. 6-8 in. tile; grading, to Phelan-Shirley Co., 306 South 24th St., Omaha, Neb., $19,250; furnishing tile, to Young Coal Co., 412 West 3d Ave., $3,483; bridges and culverts, to J. O. Parsons, Dyersville, $7,335.

★**Ia., Webster City**—Hamilton Co. let contract grading 12.049 mi. Primary Rd. Project 79 south of here, involving 98,292 cu.yd. excav., to J. A. Dunkel, Webster City, $0.29 per cu.yd.

★**Minn., Fairmont**—Martin Co. let contract gravel surfacing 10 mi. State Rd. 3 between here and North Martin Co. line, Federal Aid Project 72 and 196, to Glasco, Marion, Clements & Schottenbauer, Redwood Falls. About $25,000. Noted Aug. 11.

★**Minn., Minneapolis** — Hennepin Co. let contracts grading and graveling 10 mi. Cedar Ave. Rd. in Dakota Co., to S. J. Groves & Sons Co., 306 Globe Bldg., $67,971; paving with bitulithic 1.5 mi. Lyndale Ave Rd. in Dakota Co., to General Contg. Co., 1228 Plymouth Bldg., $88,479. Noted Aug. 18.

★**Minn., Preston**—City let contract paving 4 blocks, to E. A. Sweeney, Preston. About $29,000.

★**Kan., Hiawatha**—Brown Co. let contract grading and surfacing 6.801 mi. Sect. A, 18 ft. wide, bituminous macadam, Federal Aid Project 88, to Cook & O'Brien, Ry. Exch. Bldg., Kansas City, Mo. About $60,000. Noted Sept. 1.

★**Kan., Syracuse**—Hamilton Co. let contracts (a) grading, (b) draining, (c) building bridges on 5.67 mi. Old Santa Fe Trail, Sects. A and B, Federal Aid Project 77, to A. L. Cook, Ottawa, (a) $14,075; Ford & McCorwin, Syracuse, (b) $3,380; (c) $12,392. Noted July 7.

★**Kan., Wamego**—City let contract grading, paving, curbing and guttering 13,166 sq.yd. various streets and alleys, to M. R. Aumerman, Wichita, $48,270.

★**S. D., Rapid City**—City, J. H. Mathias, clk., let contract for 46,000 sq.yd. plain concrete pavement to Jensen Paving Co., Rapid City, $3.48 per sq.yd. Noted July 7.

Montana—State Highway Dept., Capitol, Helena, opened bids Aug. 31, paving 20 mi. Skalkaho Rd., Federal Aid Project 161, Ravalli Co., involving 32,000 cu.yd. earth, 55,000 intermed. and 85,000 cu.yd. rock excav., etc. from Applegate & Toole, Anaconda, $139,140; G. Smith & Co., 994 Henry Bldg., Seattle, Wash., $191,782.

★**Missouri**—State Highway Dept., Jefferson City, let contract building 3.63 mi. state road from Marshall eastward and westward, State Aid Project 20.63, Saline Co., to Diemer & Williamson Constr. Co., Brookfield, $11,985; 2.37 mi. state road from Archie northward, State Aid Project 20.62, Cass Co., to M. B. Mess, Nevada, Mo., $8,998; 0.62 mi. state road from Edinburg eastward, State Aid Project 20.53, Grundy Co., to G. E. Sampson, Pickett Rd., R. F. D. 4, St. Joseph, $13,634; 3.76 mi. state road from Troy eastward and westward, State Aid Project 20.69, Lincoln Co., and 1.04 mi. state road from Hopewell northward, State Aid Project 20.66, Warren Co., to W. A. Ross, Kansas City, $19,348 and $17,485 respectively; 1.77 mi. state road from Richmond northward, State Aid Project 20.65, Ray Co., to Liberty Constr. Co., Kansas City, $22,806; 3.5 mi. state road north and south through Lincoln Co., State Aid Project 20.57, Lincoln Co., involving 23,817 cu.yd. earth excav., 4,009 cu.yd. borrow, 130.9 cu.yd. Class B and 19 cu.yd. Class C concrete masonry, etc., to J. P. Sparks, Washington, $19,572; 3.48 mi. state road from Perryville northeastward and southwestward, State Aid Project 20.67, Perry Co., to C. P. O'Reilley & Co., St. Louis, $18,039; 2.25 mi. state road from Jackson northward, State Aid Project 20.7, Cape Girardeau Co., to L. Penzel, Jackson, $9,093; 2.51 mi. Sedalia-Booneville Rd., State Aid Project 20.76, Cooper Co., to E. C. Johnson, Jefferson City, $10,313; 5.23 mi. state road from Hollans northeastward, State Aid Project 20.78, Pemiscot Co., to W. P. Robertson, Carruthersville, $11,059; 4.21 mi. state road from Lexington eastward and westward, State Aid Project 20.52, Lafayette Co., to A. Hood, Independence, $13,810. Noted June 2 and Aug. 4.

Tex., Comanche—Comanche Co. received bids grading, gravel surfacing and draining (1) 8.03 mi. State Highway 22, (2) 17.43 mi. State Highway 18, from Harris & Powell, Tyler, (1) $55,415; (2) $129,573; E. W. Moore Constr. Co. & E. Shelton, c/o E. W. Moore Constr. Co., Lufkin, (1) $57,477; W. P. McCoy & S. M. Bush, c/o W. P. McCoy, Arlington, (1) $60,796; L. M. Kirkes, c/o L. D. Parks, co. engr., De Leon, (2) $142,365; A. Murphy & G. B. Fisher, c/o G. B. Fisher, Blandlake, (2) $152,891. Noted Aug. 11.

Tex., Quitman—Wood Co. received bids gravel surfacing 14.5 mi. Jim Hogg Highway 37, from A. R. Oglesby, Cleburne, $29,099; W. P. McCoy, Arlington, $30,274; Boyd & Alvis, Winnsboro, $32,602. Noted Aug. 18.

Colorado—State Highway Dept., Denver, received bids grading and draining 5.5218 mi. Turkey Creek Canon Rd. between Morrison and Conifer, Federal Aid Project 136, from Peterson, Shirley & Gunther, 3205 Josephine St., Denver, $34,610; O'Dell Bros., Raton, N. M., $36,812; Monaghan & Cunningham, 1711 Market St., Denver, $37,812; paving 2½ mi. Lincoln Highway, southwest of Sterling, Federal Aid Project 142, concrete, from H. L. Scott, 327 North 3rd St., Sterling, $82,155; J. E. Young, 1267 South Race St., Denver, $83,639; Brodie & Anderson, 609 Inter State Trust Bldg., Denver, $84,473. Noted Sept. 1.

★**Col., Denver**—City let contract paving 22 blocks 7th Ave. Paving Dist., 30 ft. wide, asphalt, to Gibbons & Lawrence, 1690 Albion St., $40,337. Noted Aug. 25.

★**New Mexico** — State Highway Comn., Capitol Bldg., Santa Fe, let contracts, grading, surfacing, building culverts and bridges on 16.361 mi. Roswell-Dexter Rd., Federal Aid Project 48, Chaves Co., to Duvall, Johnston & Sappington, Roswell, $61,321; 11.592 mi. Colfax-Cimarron Rd., Federal Aid Project 1-D, Colfax Co., to Atlas Constr. Co., La Veta Col., and A. P. Atchinson, Raton, $35,866; 6.801 mi. Mescalero-Tularosa Rd., Federal Aid Project 40, Otero Co., to J. V. Stryker Constr. Co., Denver, Col., $45,776; 32.604 mi. Steins-Rodeo Rd., Federal Aid Project 54, Hidalgo Co., to O. C. McElrath Constr. Co., South Center St., Mesa, Ariz., $83,823; 4.343 mi. Hurley-Bayard Station Rd., Federal Aid Project 55, Grant Co., to J. V. Stryker Constr. Co., Denver, Col., $27,921; 20.871 mi. Tecolote-San Jose Rd., Federal Aid Project 60-B, San Miguel Co., to Peterson, Shirley & Gunther, 1102 Woodmen of World Bldg., Omaha, Neb., $121,064; 10.057 mi. Taos-Taos Jct., Federal Aid Project 67, Taos Co., to Morrison, Sheetz & Morrison, Colorado Springs, Col., $57,669; grading and building culverts and bridges on 4.394 mi. Canjilon-Tierra Amarilla Rd., Navajo Canyon Forest Aid Co-operative Project, Rio Arriba Co., to French & Harvey, Santa Fe, $24,124. Noted Aug. 18.

★**Washington** — State Highway Comn., Olympia, let contracts clearing, grading, draining and surfacing with gravel or crushed rock, 10.2 mi. Sunset Highway between Coulee City and Hartline, Grant Co., to J. E. Edwards, Yakima, $38,997; 1 mi. Sunset Highway from Baird to Coulee, Douglas Co., to Root & Josiyn, Spokane, $69,757; clearing, grading, draining and surfacing with gravel 3.8 mi. State Rd. 4, from Republic west, Ferry Co., to Carlson & Norman, Yakima, $38,555; clearing, grading, draining and surfacing with crushed rock 8.6 mi. Inland Empire Highway between Asotin Co. line and Silcott, Asotin Co., to Pacific Coast Paving Co., Portland, $126,321; clearing, grading, draining and paving with concrete 8.3 mi. Pacific Highway from Kalama to Woodland, Cowlitz Co., to Coluccio & Erickson, Hinckley Bldg., Seattle, $325,516; grading, draining and paving with concrete 5.4 mi. Inland Empire Highway from Waitsburg south, Walla Walla Co., to Yakima Paving Co., Yakima, $179,013; surfacing with gravel or crushed rock 12 mi. Central Washington Highway from Lind to Franklin Co. line, Adams Co., to Carlson & Norman, Yakima, $40,320; constructing steel bridge over Bear River on Ocean Beach Highway, Pacific Co., to Bean Constr. Co., Mt. Vernon, $23,796. Noted Aug. 18.

★**Cal., Los Angeles**—City let contract grading, oiling and laying sidewalks, curbs and gutters, on Van Horne Ave., involving 104,396 sq.ft. grading and oiling, 463 sq.ft. asphalt and 271 sq.ft. concrete paving, 7,100 lin.ft. cement curbing, 14,767 sq.ft. concrete gutter, 28,402 sq.ft. cement sidewalk, to W. D. McCray, 424 Amer. Bank Bldg., $33,342.

★**Cal., Los Angeles** — City let contract paving and laying curbs and sidewalks on Western Ave. between Adams and Santa Barbara Sts., to G. H. Oswald, 366 East 58th St. $94,089. Noted Sept. 8.

★**Ont., Watford**—Town let contract paving 15,400 sq.yd. Main St., to Merlo, Merlo & Ray, Walkerville, $3.28 per sq.yd. Noted Aug. 4.

Industrial Works

PROPOSED WORK

Mass, Springfield — W. J. Hyland Mfg. Co., 151 Dwight St., opens bids about Sept. 22, building 3 story, 50 x 90 ft. concrete brick and steel plant, rein.-con. flooring, on Liberty St. Private plans.

Mass., Northampton—F. C. McGrannis, Court St., plans to build 1 story, 100 x 125 ft., brick, concrete and steel garage and service station, on King and North St. Private plans.

R. I., Providence—C. S. Tanner Co., 246-256 South Water St., having plans prepared by W. R. Walker & Son, archts., 49 Weybosset St., for 2 story, 56 x 60 ft. brick factory. About $40,000.

Pa., Hollidaysburg—Blair Ice & Storage Co., recently organized with $100,000 capital stock, plans to purchase site and erect 4 story, brick, storage plant. G. B. Miller, 1112 Allegheny Ave., pres.

Pa., New Brighton—Wyckoff Drawn Steel Co., Frick Bldg., Pittsburgh, plans to build 1 story, 60 x 200 ft., brick and steel factory in Wyckoff, near here. About $75,000.

Pa., Pittsburgh—Air Reduction Co., 342 Madison Ave., New York City, having sketches made by Francisco & Jacobus, engrs. and archts., 511 5th Ave., New York City, for 2 story, brick, steel and stone plant on Ridge Ave., here. About $250,000.

Pa., Williamsport—C. A. Reed & Co., Laurel and Willow Sts., opens bids about Oct. 7, building 4 story, 70 x 180 ft. brick and steel factory on Chestnut St. About $100,000. Noted July 28.

Md., Baltimore—C. R. Bealmear, Title Bldg., plans to build 5 story, garage and service station on Linden and Monument Sts. Architect not selected.

Md., Baltimore—Lamm Bros., 401 North Gay St., having plans prepared by J. Freund, archt., 1307 Paul St., for 3 story, 75 x 105 ft., brick factory on Exeter St. near Gay St. About $65,000.

D. C., Wash.—Security Storage Co., 1140 15th St., N. W., opens bids about Sept. 17 constructing storage building at 1142 15th St., N. W. About $100,000. N. C. Wyeth, 1517 H St., N. W., archt.

O., Cleveland—Atwater Realty Co., 13807 St. Clair Ave., having plans prepared by A. F. Janowitz, archt., Permanent Bldg., constructing 2 story, 60 x 95 ft., brick and steel garage and commercial building, brick foundation, on Euclid Ave. and Van Buren Rd. About $40,000.

Ill., Chicago—Griswold & Walker, c/o A. S. Alschuler, archt., 28 East Jackson Blvd., plans to build warehouse, between Chicago, Burlington and Quincy R.R., Baltimore & Ohio R.R., Halsted St. and Newberry Ave. About $1,500,000.

Ill., Chicago—Interstate Garage Corp., 110 North Market St., having sketches made by L. E. Stanhope, archt., 59 East Madison St., for 10 story, 150 x 200 ft., garage, rein.-con., on Wabash Ave. and South Water St. About $225,000. H. D. Jackson, pres.

Ill., Chicago—Minchin & Spitz, archts., 19 West Jackson Blvd., preparing plans 10 story, 100 x 150 ft. warehouse, rein.-con. and brick, rein.-con. flooring, on North Shore Ave. north of River St., About $1,000,000. Owner's name withheld.

Ill., Chicago—Mothers Wet Wash Co., 6337 North Clark St., soon receives bids building 1 story, 60 x 125 ft. brick laundry, on Lawrence Ave. near Irving Ave. About $40,000. C. E. Pearson, 1930 North Keystone Ave., archt

Ill., East St. Louis—Southern Illinois Milk Producers Assn., Arcade Bldg., having plans prepared by R. G. Kirsch, archt., Magnolia and Thurman Sts., St. Louis, Mo., for 1 story, brick and steel factory. About $50,000.

Ill., Harrisburg — C. V. Parker & Co. plans to build 3 story warehouse, rein.-con. and brick. About $150,000. Architect not selected.

Industrial Works (Continued)

Ill., Moline—Moline Daily Dispatch, 1509 3rd Ave. A, having plans prepared by Clausen & Kruse, archts., Central Office Bldg., Davenport, Ia., for 2 story, 50 x 140 ft. publishing plant, brick and rein.-con. About $150,000.

Wis., Maribel—Maribel Strawcutter Co., c/o H. Elmer, had plans prepared for 1 and 2 story, 60 x 99 ft., rein.-con. and brick factory, rein.-con. flooring, brick foundation, on Main St. About $50,000. Private plans.

Wis., Osseo—C. A. Amundson plans to build 1 story, 68 x 118 ft., brick and concrete garage, rein.-con. flooring, plain foundation About $40,000. Architect not selected.

Wis., Waukesha — Manitowoc Church Furniture Co. having plans prepared for 1 story, 60 x 150 ft., brick, rein.-con. and steel factory, rein.-con. flooring, brick foundation, on Main St. About $60,000. C. F. Schultze, mgr. Private plans.

Ia., Maquoketa—Iowa Electric Light Co., Cedar Rapids, having plans prepared by Holland, Akerman & Holland, engrs., 106 Liberty St., Ann Arbor, Mich., for new hydro electric development plant, here. About $75,000.

Mo., Kansas City—Kelly Mill Co., Rochester and Park Sts., plans to build flour mill, steel and concrete. About $500,000. A. B. Kelly, pres. Architect's name withheld.

Mo., Kansas City—Perky Bros. Transfer & Storage Co., 2431 Prospect Ave., having plans prepared by C. B. Sloan, archt., 321 East 11th St., for 6 story, 60 x 110 ft. rein.-con. and brick warehouse, on Independence St. and Benton Ave. About $175,000. Noted Sept. 8.

Mo., St. Louis—Plymouth Garage Co., 5909 Plymouth St., having plans prepared by Wedemeyer & Nelson, archts., Wainwright Bldg., for 1 story, 80 x 175 ft. brick and steel garage, on Plymouth and Hamilton Sts. About $50,000. Noted Sept. 8.

Okla., Oklahoma City—Smith Baking Co., 437 West Park St., having plans prepared by P. H. Anthony, archt., Waldheim Bldg., Kansas City, for 2 story, 100 x 150 ft bakery, on 39th St. and Oklahoma Ave. About $150,000. Noted Sept. 8.

Col., Denver—Genl. Iron Wks. Co., 1720 California St., will probably receive bids in December constructing iron foundry, brick and steel, concrete foundation, on 33rd and Blake Sts. About $500,000.

Col., Denver—Super-Service Motor Assn., Colorado Bldg., having plans prepared by H. W. J. Edbrooke, archt., Tabor Opera House Bldg., for 3 story, 125 x 250 ft. motor repair plant, rein.-con., brick and terra cotta, on Speer Blvd., Bancock St. and West 7th Ave. About $300,000.

Cal., Los Angeles—See "Buildings."

Ont., Leaside—Durant Motors, Inc., Toronto, plans to build 3 story, 130 x 600 ft. concrete, brick and steel factory here. About $800,000.

Ont., Toronto—Automobile Serv. Syndicate, 21 Dundas St. E., having plans prepared by N. A. Armstrong Co., Ltd., archts., 7 King St. E., converting 3 story, concrete brick and steel building, on Dundas St., into garage. About $50,000.

BIDS DESIRED

Conn., Stamford—G. A. Freeman, archt., 292 Main St., receiving bids building 2 story, 90 x 140 ft. brick and steel plant on Pacific St., here, for Monarch Mfg. Co., 718 Bway., New York City. Noted July 7.

Ill., Chicago—H. L. Newhouse, archt., 4630 Prairie Ave., receiving bids building 1 story, 100 x 180 ft. brick garage, 5018-24 Cottage Grove Ave., for H. Salvat, 5322 Harper Ave. About $50 000.

Ont., Kingston—Until Sept. 22, by Power, Son & Drever, archts., Merchants Bank Bldg., constructing 1 story, rein.-con., brick and steel power plant, for Kingston General Hospital, Stuart St., and Queens University, 207 William St., joint owners. About $75,000. Noted March 10.

Ont., Windsor — Colthurst, Trace & Nichols, archts., 16 Sandwich St. W., receiving bids building 2 story, 125 x 400 ft. cold storage plant, rein.-con., brick and steel, rein.-con. flooring,concrete foundation, for Essex Provision Co. Ltd., 1120 McDougal St. About $600,000. Noted Aug. 11.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Farmington—Franklin Farm Products Co. let contract building 1 story, 30 x 100 ft. canning factory, brick and steel, to O. P. Stuart, Farmington.

★Mass., East Boston—B. M. Muller, 491 Saratoga St., let contract building 1 story, 100 x 125 ft. concrete, brick and steel garage and service station, rein.-con. flooring, plain foundation, to P. Rich, 67 Byron St., Boston. About $50,000.

★Mass., Fall River—Amer. Printing Co., 56 Water St., let contract altering and building several additions to factory, to McNally Constr. Co., 84 North Main St. About $40,000.

★Mass., Roxbury—J. Donnelly & Sons, 97 Warrenton St., let contract building 2 story, 60 x 125 ft. printing plant, concrete, brick and steel, rein.-con. flooring, on School St., to Kearns Constr. Co., 151 Milk St., Boston.

★Mass., Springfield—High St. Realty Trust Co., 480 Worthington St., let contract building 2 story, concrete, brick and steel garage and service station, rein.-con. flooring, plain foundation, to Radding Co., 158½ Main St. About $40,000.

★Mass., Watertown—C. H. Hodge, 45 Bates Rd., will build 1 story, 80 x 135 ft. brick and steel garage, rein.-con. flooring, on Salem St. Work will be done by day labor.

★R. I., Providence—Sunshine Ice Cream Co., 372 Cranston St., will build 2 story, 40 x 80 ft., brick and steel plant, on Cranston St. Work will be done by day labor. Noted June 9.

★Conn., Norwalk—S. Kantor, 65 Cross St., let contract building 1 and 2 story, 80 x 160 ft., brick and steel garage and service station, rein.-con. flooring, plain foundation, on Isaac St., to M. Mattiello, Forest St., New Canaan. About $40,000. Noted June 9.

★N. Y., Amsterdam—F. P. Sheldon & Son, archts. and engrs., Rhode Island Trust Bldg., Providence, R. I., let contract to Aberthaw Constr. Co., 27 School St., Boston, constructing 6 story, 56 x 60 ft., rein.-con. mill addition, rein.-con. flooring, plain foundation, here, for Mohawk Carpet Mills, Inc., 57 Lyons St. About $275,000. Noted July 28.

★N. Y., Brooklyn—S. Gasner & Sons Co., 1870 Pitkin Ave., let contratc building 1 story, 105 x 260 ft. rein.-con. and steel warehouse, rein.-con. flooring, concrete foundation, on Junius St. and Sutter Ave., to Turner Constr. Co., 244 Madison Ave., New York City. About $150,000.

★N. Y., New York—New York Steam Co., 280 Madison Ave., let contract building steam station, rein.-con. and steel, rein.-con. flooring, concrete foundation, on 59th St. and East River, to Stone & Webster, 120 Bway. About $400,000.

★Pa., Phila.—S. Wilensky, 826 Reed St., let contract building 1 story, 60 x 208 ft. rein.-con., brick and steel garage, rein.-con. flooring, concrete foundation, at 4028 Poplar St., to Gold & Goldman, 2028 South 5th St. About $50,000.

★Pa., Sunbury—Butter Krust Baking Co., c/o B. Apple, let contract building 2 story, 70 x 130 ft. bakery, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 249 Eckman Ave., to L. C. Shipe, Sunbury. About $150,000. Noted Aug. 19.

★Md., Baltimore—Cook Nuts Corp., Paca and Lexington Sts., let contract building 4 story, 56 x 104 ft., rein.-con. factory, on 1st and Toon Sts., to C. L. Stockhausen, Gay and Water Sts. About $85,000. Noted Apr. 21.

★O., Cleveland—H. E. Emmerman, Erie, Pa., let contract remodeling and building 1 story, 24 x 40 ft. brick and steel addition to garage, at 2007 Prospect Ave., here, to C. M. Griffin, 5511 Euclid Ave. About $40,000.

★O., Cleveland—J. L. Free, 1004 Prospect Ave., let contract building 1 story, 140 x 165 ft., brick, steel and concrete garage, rein.-con. flooring, brick and concrete foundation, on Bolivar Rd., to Austin Co., 16112 Euclid Ave. About $60,000.

★Ill., Elmhurst—Crefar Co., 144 York St., let contract building 1 story, 50 x 135 ft. garage, to W. Schultz, Elmhurst. About $55,000.

★Ill., Herrin—Illinois Central R.R., 135 East 11th St., Chicago, let contract building 1 story, 60 x 200 ft. brick and steel engine house and machine shop, here, to G. A. Johnson & Son, 1335 North Clark St., Chicago. About $60,000. Noted July 28.

★Ill., Rock Island—J. M. Schaab, 1601-4th Ave., let contract building 1 story, 62 x 150 ft. brick and steel garage, to J. M. Kaiser & Son, Rock Island. About $50,000. Noted Sept. 8.

★Ia., Cedar Rapids—Harper & McIntire Co., Ottumwa, let general contract building 4 story, 100 x 140 ft. warehouse, rein.-con., brick, tile and stone, on 6th Ave. and 4th St., to T. Stark & Co., 1103-1st Ave., W., $131,000. Total cost about $160,000. Noted Sept. 8.

★Ia., Des Moines—J. P. Condon and G. E. Davis, 3200 Ingersoll Ave., let contract building 2 story, 135 x 167 ft. garage, brick and steel, to W. Knudson & Sons, Flynn Bldg. About $60,000.

★Ia., Oskaloosa—R. F. Panders let contract building 2 story, cold storage plant, rein.-con. and brick, to McKee & Fanscher Co., 118-1st Ave. About $55,000.

★Kan., Hutchinson — Hutchinson Office Supply Printing Co. let contract constructing 2 story, 60 x 80 ft., brick and steel plant, to Stamey & Mackey Constr. Co., Hutchinson. About $60,000.

★Kan., Kansas City—Pennsylvania Tank Line Co. let contract constructing 1 story, 80 x 30 ft. and 80 x 200 ft. repair plant, steel, on 40th and Augusta Sts., to Kansas City Structural Steel Co., Orear Leslie Bldg., Kansas City. About $150,000.

★Mo., St. Louis—Standard Underground Cable Co., Westinghouse Bldg., Pittsburgh, Pa., let contract building 2 story, 300 x 525 ft. plant on Kingshighway and Slevin St., here, to Widmer Eng. Co., Syndicate Trust Bldg. About $1,000,000; cost plus percentage basis. Noted Sept. 8.

★Mo., Trenton—Chicago, Rock Island & Pacific R.R., 137 West Van Buren St., Chicago, will build 1 story, 87 x 400 ft. car repair shop, brick and steel, here. About $60,000. Work will be done by day labor. Noted June 2.

Buildings

PROPOSED WORK

Me., Portland—Convent and Home—St. Josephs Convent, 605 Stephens Ave., had plans prepared by O'Connell & Shaw, archts., 18 Boylston St., Boston, for 1 and 4 story, 40 x 150 ft., brick, steel and concrete addition. About $300,000.

Mass., Greenfield—Church, etc.—First Congregational Church, Nash Mills, having plans prepared by Richie, Parsons & Taylor, archts., 15 Ashburton Pl., Boston, building 1 story, 50 x 100 ft. church, 1 story, 40 x 40 ft. school, and 2 story, 40 x 90 ft. parish house, stone and stucco, on Wells and Silver Sts., here. About $150,000.

Mass., Springfield—Gymnasium—Y. M. C. A. College, 287 Hickory St., had plans prepared by H. L. Sprague, archt., 310 Main St., for 3 story, 40 x 70 ft., concrete, brick and steel, rein.-con. flooring, on South Field St. About $150,000. Noted June 3.

Conn., Hartford—Business—Estate of J. J. Goodwin, 36 Pearl St., having preliminary plans prepared by P. Goodwin, archt., 43 East 39th St., New York City, for 2 story, 110 x 110 ft. brick, on Haynes St. Noted Sept. 8.

Conn., Waterbury—Parish, House, Hall, etc.—St. John's Protestant Episcopal Parish, Church and West Main Sts., having plans prepared by R. H. Dana, archt., 101 Park Ave., New York City, for 3 story, 50 x 130 ft., stone, steel, brick and concrete, rein.-con. flooring, plain foundation, on Church St.

N. Y., Brooklyn — Home — Industrial Home for Blind, 512 Gates Ave., soon receives bids building 3 story, brick, steel and stone, concrete foundation, on Gates Ave. About $150,000. P. Tillion & Son, 101 Park Ave., New York City, archts. and engrs. Noted May 19.

N. Y., New York—Apartments—J. Golding, c/o Rouse & Goldstone, archts. and engrs., 512-5th Ave., had plans prepared for 2 brick, steel and stone, concrete foundations, on 90th St. and Bway. About $750,000 each.

N. Y., New York—Assembly and Class Rooms — Temple Israel, c/o Tachau & Vought, archts. and engrs., 109 Lexington Ave., having sketches made for 4 story, brick, steel and stone, concrete foundation, at 200 West 91st St. About $250,000.

N. Y., New York — Theatre—L. Weiss, 299 Bway., plans to build brick, steel and stone, concrete foundation, on Lenox Ave. between 139th and 140th Sts. About $500,000.

N. Y., Olean—Hospital—Olean Hospital Assn., c/o A. Bossom, archt. and engr., 680 5th Ave., New York City, soon receives bids building brick, steel and stone addition, concrete foundation, here. About $150,000.

N. J., Atlantic City—Hotel—Fitzgerald Hotel Co., 30 East Kentucky Ave., having preliminary plans prepared by McLanahan

Buildings (Continued)

& Bencker, archts., Bellevue Court Bldg., Phila., for 5 and 14 story, brick and steel, rein.-con. flooring, concrete foundation, on Indiana and Arctic Aves. About $500,000.

N. J., Newark—Y. M. H. A., c/o F. Grad, archt. and engr., 245 Springfield Ave., soon receives bids constructing 96 x 176 ft., brick, steel and stone building, concrete foundation, on High and West Kinney Sts. About $500,000. Noted June 30.

N. J., Palmyra—High School—Bd. Educ. soon receives bids building 2 story, on 5th St. and Delaware Ave. About $150,000. B. R. Stevens, 1727 Filbert St., Phila., archt. Noted May 26.

Pa., Chester—Apartment and Store—J. Faronan, archt., 114 West 18th St., preparing preliminary plans for 3 story, 40 x 120 ft. brick and timber. About $160,000. Owner's name withheld.

Pa., Harrisburg—City election Nov. 8 to vote on $2,000,000 bond issue; $1,750,000 to be used for high school on 6th and Division Sts., and $200,000 for 16 room grade school on 3rd and Reily Sts. Address School Dist., 121-123 Chestnut St. D. D. Hammelbaugh, secy.

Pa., Tamaqua—High School—School Dist. having plans prepared by B. R. Stevens, archt., 1727 Filbert St., Phila., for 2 story, on East Broad St. About $150,000.

Pa., Williamsport—Business—Spotts Bros. plans to build 3 story, 70 x 125 ft. on Market St. and Southern Ave. About $150,000.

W. Va., Wheeling—Hotel—Tri-State Hotel Co., plans to build 19 story. About $600,000. E. L. Waddell, Rumny Rd. Beach Glen, part owner. Architect not selected.

N. C., Albemarle—Courthouse—Stanly Co. plans to build courthouse and jail, on 1st and South Sts. About $200,000. R. G. Mabry, comr. Architect not selected.

N. C., Rocky Mount—School—Bd. Graded School Trustees having plans prepared by J. C. Stout, archt., Rocky Mount, for brick school. About $150,000. W. S. Wilkinson, chn.

S. C., Columbia—Apartment—Winva Realty & Trust Co., J. L. Denny and others, open bids about Sept. 20, building 5 and 6 story, concrete and steel. About $450,000. D. G. Zeigler & Co., 14 Kirkland Bldg., archts.

La., New Orleans—Bank—Federal Reserve Bank, Camp St., having plans prepared by R. DeBuys, archt., Camp and Commercial Alley, for 4 story, on Carondelet and Common Sts. About $250,000.

Ky., Covington—Exchange—H. Hake and C. Kuck, archts., Telephone Bldg., Cincinnati, O., opens bids about Oct. 15 building 2 story, 50 x 130 ft., brick and stone, rein.-con flooring, concrete foundation, on Scott St., here, for Cincinnati and Suburban Bell Telephone Co., 225 East 4th St., Cincinnati, O. About $200,000.

O., Cleveland—Commercial—Galvin Bros., 1200 West 9th St., plan to build 2 story, 60 x 200 ft., brick, steel and concrete, rein.-con. flooring; brick and concrete foundation, on Euclid Ave. and East 69th St. About $150,000. Architect's name withheld.

O., Cleveland—Commercial and Apartment—M. Lees, 2099 Lamberton Rd., Cleveland Heights, plans to build 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, on Page Ave. near Euclid Ave., here. About $150,000. Private plans.

O., Marion—Hotel—Marion Hotel Co. having sketches made for Hotel Hardin, 8 story. About $600,000. W. H. Holverstatt, pres.

O., Middletown—Hotel—J. A. Aull, acting chn. Middletown Hotel Co., receives bids in about 7 weeks building 5 story, brick, concrete and steel, rein.-con. flooring, brick foundation. About $400,000. F. L. Packard, New Hayden Bldg., Columbus. archt.

O., Pleasant Hill—School—Newton Twp. School Dist. plans to build 3 story, 80 x 200 ft. brick and rein.-con., rein.-con. flooring, concrete foundation, on Main St. Bonds for $200,000 voted for project. W. F. Deeter, pres.

O., Springfield—Dormitory—Bd. Trustees Wittenberg College having plans prepared by G. L. Ohmart, archt., Springfield, for 3 story, 15 x 40 ft., brick and concrete, on campus. About $100,000. H. D. Smith, Town and High Sts., Columbus, consulting archt. Incorrectly noted Aug. 25.

Ind., Bluffton—High School—Bd. Educ. having plans prepared by O. Hoffman, archt., Studebaker Bldg., Decatur, Ill., for 2 story, 72 x 125 ft., brick, stone, rein.-con. and steel. About $150,000.

Mich., Ann Arbor—Dormitory—St. Mary's Chapel having plans prepared for 4 story, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Jefferson and Maynard Sts. About $250,000. Architect's name withheld.

Mich., Detroit—Bank—Detroit Savings Bank, State St., had plans prepared by R. Finn, archt., 2531 Woodward Ave., for 3 story, 26 x 161 ft. rein.-con., brick and steel, wood flooring, concrete foundation, on Woodward Ave. and Brady St. About $150,000.

Mich., Detroit—Theatre—Ferndale Amusement Co., c/o T. D. Williams, 7110 West Lafayette Ave., having plans prepared by Kohner & Seeler, archts., 1402 Kresge Bldg., for 2 story, 115 x 150 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Springwells Ave. and West Fort St. About $150,000.

Ill., Aurora—Temple—Aurora Lodge, A. F. & A. M., c/o E. M. Birch, 197 West Park St., plans to build 3 story, rein.-con., brick and stone. About $300,000. Architect not selected.

Ill., Centralia—Apartment—M. J. Hart and B. Gudder having plans prepared by Gill & Faith, archts., Murphysboro, for 2 story, brick, rein.-con. and stone. About $150,000. Noted Sept. 8.

Ill., Champaign—Hospital—Bd. Trustees, c/o F. Isner, chn., soon receives bids building 3 story, 102 x 109 ft., rein.-con., brick and stone addition to Burnham Hospital. About $200,000. Former contract rescinded. J. M. White, c/o University of Illinois, Champaign, archt. Noted Aug. 25.

Ill., Chicago—Bank and Office—W. G. Uffendel, archt., 32 South State St., soon receives bids building 2 story, 71 x 80 ft., rein.-con. and brick, on Roosevelt Rd. and Ashland Blvd., for West Side Natl. Bank. About $200,000. T. J. Healy, 1600 West Roosevelt Rd., pres.

Ill., Chicago—Office—A. S. Alschuler, archt., 28 East Jackson St., receiving bids building 7 story addition, rein.-con. and brick, rein.-con. flooring, 624 North Michigan Ave., for H. A. Blum, 624 North Michigan Ave. About $600,000.

Ill., Chicago—Temple—Hyde & Brown, archts., 8 South Dearborn St., soon receive bids building 4 story, 150 x 150 ft., brick and stone, on Argyle and Winthrop Aves., for Chicago Northern Masonic Temple, c/o Bldg. Comn., 626 South Clark St. About $200,000.

Ill., Freeport—Theatre—J. Dittman, 149 Carroll St., having plans prepared by C. W. and G. L. Rapp, archts., 190 North State St., Chicago, for 1 story, 90 x 140 ft., rein.-con., brick and terra cotta. About $150,000. Noted Sept. 8.

Ill., Herrin—Hospital—C. Baker plans to build 4 story, brick, rein.-con. and steel. About $300,000. Architect not selected.

Ill., Moline—Office, etc.—Carlson Bros., 417 15th St., having plans prepared by Whitsitt & Schulizke, archts., People's Bank Bldg., for 3 story, 40 x 150 ft. office and warehouse, rein.-con. and brick. About $150,000. Noted Sept. 8.

Ill., Mooseheart—Hotel and Office—Loyal Order of Moose, c/o P. H. Brandon, having sketches made by Graham, Anderson, Probst & White, archts., 80 East Jackson Blvd., Chicago, for 3 story, brick and stucco. About $200,000.

Ill., Oak Park—Club—Oak Park Club Bldg. Comn. having sketches made by Holabird & Roche, archts., 104 South Michigan Ave., Chicago, for club house on Ontario St. and Oak Park Ave. About $300,000. E. J. Pullock, chn.

Ill., Rock Island—College—Augustana College, 38th St., having plans prepared by Cervin & Horn, archts., 310 Safety Bldg., for brick, stone, rein.-con. and steel college, including seminary building, science hall, boys and girls dormitories. About $400,000. G. A. Anderson, pres. Noted Sept. 8.

Wis., Manitowoc—Clubhouse and Theatre—Manitowoc Aerie of Eagles, c/o J. Koutnik, 1114 South Main St., soon lets contract building 4 story, 100 x 115 ft. rein.-con., steel, brick and tile, brick foundation, on Main St. About $250,000. W. J. Roeuber, Manitowoc, archt. Noted June 9.

Wis., Manitowoc—High School—City, c/o F. L. Alter, City Hall, having revised plans prepared by Perkins, Fellows & Hamilton, archts., 814 Tower St., Chicago, and receives bids in October building 4 story, 210 x 360 ft., rein.-con., steel and brick, rein.-con. flooring, brick foundation. About $1,400,000.

Wis., Oshkosh—Clubhouse—Knights of Columbus, Council 614, 20 Washington St., plans to build 3 story, 60 x 210 ft., rein.-con., steel and brick, brick foundation. About $150,000. Architect not selected.

Wis., Reedsville—Club House—J. Gosz Amer. Legion, c/o E. C. Cary, commander, having plans prepared by Juul & Smith, archts., Imig. Bldg., Sheboygan, for 2 story, 70 x 100 ft., rein.-con., brick and tile, brick foundation, on Main St. About $150,000.

Ia., Clear Lake—Club—Knights of Pythias plan to build club house, here. About $200,000.

Ia., Davenport—College—St. Ambrose College, 518 West Locust St., having plans prepared by A. Ebeling, archt., Kahl Bldg., for 4 story, brick, rein.-con. and stone. About $150,000. J. P. Stahl, secy.

Ia., Des Moines—Church—Congregation of Brai Jacob Synagogue, c/o H. Finkelberg, pres., 301 West Walnut St., having plans prepared by R. G. McDowell, archt., 207 Iowa Bldg., for 3 story, 78 x 93 ft., brick, stone and rein.-con., on 5th and University Sts. About $150,000.

Ia., Waterloo—Temple—A. F. & A. M., c/o J. G. Bolston, having plans prepared by M. B. Cleveland and H. Purr, archts., Waterloo, building 3 story, 120 x 141 ft. rein.-con., brick, stone and steel. About $300,000.

Minn., Minneapolis—Bank—Federal Reserve Bank, New York Life Bldg., had plans prepared by C. Gilbert, archt., 244 Madison Ave., New York City, for 5 story, brick, steel and stone concrete pile foundation, on Marquette Ave. About $750,000. C. Aus, 244 Madison Ave., New York City, engr. Noted June 9.

S. D., Fairmont—Church—Roman Catholic congregation having plans prepared by Sliffer & Abrahamson, archts., Endicott Bldg., St. Paul, Minn., for 2 story, 50 x 100 ft., brick, stone and steel. About $150,000.

N. D., Fargo—School and Apartment—Fargo School of Business, c/o O. J. Hansen, 124 Roberts St., having plans prepared by Magney & Tusler, archts., Builders Exch., Minneapolis, Minn., for 5 story, 50 x 140 ft., rein.-con., brick, stone and steel, on 4th Ave. and North Roberts St. About $200,000.

Mont., Bozeman—Biology and Gymnasium—State Bd. Educ. receives bids in December constructing 5 story, 67 x 129 ft. biology building and 4 story, 98 x 162 ft. gymnasium, rein.-con. and brick, at State College of Agricultural and Mechanical Arts, here. About $150,000 and $225,000 respectively. Shanley & Baker, Great Falls, archts. Noted June 30.

Mo., Chillicothe—City Hall—City plans to build 2 story, brick and stone, rein.-con. or steel frame. About $150,000. F. W. Ashby, mayor. Architect not selected.

Mo., St. Louis—Store and Office—Grand & Washington Real Estate Co., c/o J. C. Campbell, 107 North 7th St., plans to build 5 story, brick and stone trim, rein.-con. or steel frame, on Grand and Washington Sts. About $270,000. Architect not selected.

Okla., Tusla—Temple—Akdar Temple, c/o Puckey & Jenkins, archts., 6 North Michigan Ave., Chicago, having plans prepared for 3 story, brick. About $250,000. Noted Aug. 4.

Utah, Salt Lake City—Club—B. P. O. E. Lodge 85, South State St., opens bids in about 60 days bulding 5 story, 83 x 147 ft., rein.-con. and brick, on East South Temple St. About $300,000. Scott & Welch, Dooly Bldg., archts. Noted Dec. 16.

Wash., Spokane—Nurses Home—Sacred Heart Hospital, 8th and Brown Sts., having plans prepared by A. Held, Archt., Realty Bldg., for 7 story, 40 x 138 ft., rein.-con. and steel. About $240,000.

Cal., Los Angeles—Museum—Bd. Supervs. Los Angeles Co. having plans prepared by W. Davidson, archt. and engr., Hall of Records, for 1 and 2 story, 100 x 175 ft., brick and concrete addition in Exposition Park. About $150,000.

Cal., Los Angeles—Office, etc.—Union Pacific R.R., Pacific Electric Bldg., having plans prepared for 2 story, 80 x 200 ft. office and 1 story, 50 x 600 ft. freight house, rein.-con., on Hunter St. About $250,000. Private plans.

Ont., Ottawa—Collegiate—Ottawa Collegiate Bd., 7 Monkland Ave., having plans prepared by J. A. Ewart, archt., Jackson Bldg., for 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on 1st Ave. About $700,000.

Buildings (Continued)

Ont., Toronto—School—Bd. Educ. soon receives new bids building Riverdale Technical School, 3 story, 40 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation. About $800,000. W. W. Pearse, 155 College St., archt.

BIDS DESIRED

R. I., Cranston—Hospital—Until Sept. 22, by Penal & Charitable Comn., Providence, constructing two 3 story, brick and concrete ward buildings, rein.-con. flooring, at State Infirmary, here. About $300,000. G. F Hall, 806 Union Trust Bldg., Providence archt.

Conn., Hamden—School—Until Sept. 19, by A. W. Deane, town clk., building 2 story, 10 room school on Pine St., and 2 story, 8 room school on Woodruff St., brick and steel, plain foundations. About $160,000. Brown & Von Beren, 185 Church St., New Haven, archts. Noted July 14.

N. Y., New York—School—Until Sept. 21, by C. B. J. Snyder, supt. School Buildings of Bd. Educ., Municipal Bldg., constructing P. S. 189, on Amsterdam Ave. between West 188th and 189th Sts. Noted April 28.

N. J., Camden—School—Until Sept. 24, by Bd. Educ., c/o E. E. Reed, City Hall, building 2 story, 107 x 207 ft., brick, stone and tile, rock foundation, at North Cramer Hill. About $200,000. C. S. Adams, 2038 Spruce St., Phila., archt.

Pa., Cresson—Playhouse—Until Sept. 26, by E. Martin, health comr., Harrisburg, building 1 story 88 x 106 ft., concrete and stone, also rein.-con. tunnel, 80 ft. long, 8 ft. 8 in. wide. W. G. Myton, 1204 First Natl. Bank Bldg., Johnstown, archt.

Pa., Mahanoy City—Bank—Until Sept. 20, (change of date) by B. R. Stevens, archt., 1727 Filbert St., Phila., building 1 story, 25 x 125 ft. concrete, brick and steel, rein.-con. flooring, concrete foundation, on Center and East Main Sts., for Union Natl. Bank. About $150,000. Noted Aug. 18.

Pa., Phila.—Church—Maginnis & Walsh, archts., 100 Boylston St., Boston, Mass., receiving bids building 1 story, brick, steel and stone on Kensington St., here, for Holy Name of Jesus Church, Bess and Gaul Sts. About $250,000.

La., Pineville—Dining Hall, Dormitory, etc.—Until Oct. 4, by Bd. Administrators, Louisiana Hospital for Insane, constructing dining hall and 3 dormitory buildings here. About $500,000. J. W. Smith, Monroe, archt.

Tenn., Memphis—Club—Until Sept. 30, by Rogan & Weller and J. H. Kramer, associated archts., Bank of Commerce Bldg., constructing 6 story, rein.-con. and tile on Adams and 3rd Sts., for Catholic Club Building Assn. About $500,000.

Ill., Champaign—Store and Apartment—Until Sept. 20, by H. Nash, Trevett-Mattis Bank Bldg., constructing 3 story. About $150,000. G. Ramey, Robeson Bldg., archt.

Ill., Chicago — Apartment — Dubin & Eisenberg, archts., 14 West Washington St., receiving bids building 3 story, 150 x 160 ft., concrete, brick and stone, on Sheridan Rd. and Birchwood Ave., for Smith & Dubin, c/o architects. About $300,000. Noted Apr. 28.

Ill., Chicago—Office—P. Gerhardt, archt., 64 West Randolph St., receiving bids building 10 story, 90 x 104 ft., rein.-con., brick and steel, rein.-con. flooring, on Milwaukee and North Aves. About $500,000. Lieberman, Klein & Hein, 190 North State St., engrs. Owner's name withheld.

Okla., Sulphur—Hospital—Until Sept. 20, by Soldiers Relief Comn., c/o H. B. Bell, chn., Ardmore, and C. P. Nieder, archt., Empress Theatre, Oklahoma City, building 2 story, rein.-con., steel and brick, rein.-con. flooring, brick and rock foundation, here. About $150,000. Noted Sept. 8.

Ont., Hamilton—Nurses Home—Until Sept. 24, by Stevens & Lee, archts., 62 Charles St. E., Toronto, building 3 story, 40 x 180 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, for St. Joseph's Hospital, 316 John St. S. About $175,000.

B. C., Victoria—Hospital—Until Sept. 24, by Trustees Royal Jubilee Hospital, building 4 story, rein.-con., brick and tile, on hospital grounds. About $300,000. P. L. James, 321 Saywood Bldg., archt. Noted June 23.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Portland** — School — School Bldg. Com. let contract altering North School and building 3 story, 52 x 125 ft., brick and steel addition., rein.-con. flooring, on Congress St., to Blackstone & Smith, 187 Middle St. About $150,000.

★**Mass., Dedham**—School—School Comrs. let contract building 2 story, 70 x 140 ft., brick and steel, rein.-con. flooring, plain foundation, on High St., to J. J. Powers Co., 33 Myrtle St., Cambridge. About $150,000. Noted June 16.

★**Mass., Lawrence**—School—Holy Trinity Church, Harvard St., let contract building 3 story, 70 x 100 ft., brick and steel addition, to J. Cyr, 86 Beacon St. About $150,000.

★**Mass., Methuen**—School—School Comn. let contract building 3 story, 60 x 140 ft. with 45 x 60 ft. ell, brick and steel, rein.-con. flooring, plain foundation, on Orchard St., here, to W. N. Pike & Son, 264 Essex St., Lawrence. About $225,000.

★**Mass., Norwood**—High School—School Dept. let contract building 2 story, brick and steel addition, rein.-con. flooring, plain foundation, to F. M. Douglass, Norwood. About $150,000.

★**Mass., Pittsfield** — Theatre — Majestic Theatre Corp., Mills Blk., let contract remodeling 3 story, brick, steel and concrete, rein.-con. flooring, on North St., to Jardine Co., 507 5th Ave., New York City. About $200,000. Noted June 9.

★**Mass., Worcester** — Dormitory — Holy Cross College, College St., let contract building 4 story, 108 x 113 ft. concrete, brick and steel, rein.-con. flooring, on Campus, to McDermott Bros., 18 Cedar St. About $300,000. Noted June 30.

★**Mass., Wrentham**—Assembly Hall, etc. —Mental Diseases Comn., 109 State House, Boston, let contract constructing 2 story, 52 x 146 ft. and 33 x 106 ft., industrial building and assembly hall, brick and concrete, rein.-con. flooring, plain foundations, at State School, here, to P. H. Provencal Co., 127 Worth St., Ware. About 150,000. Noted Aug. 11.

★**Conn., New London**—Business—F. H. and A. H. Chappell Co., 286 Bank St., let contract remodeling 4 story, 78 x 100 ft., brick and concrete, rein.-con. flooring, on Bank St., to Occiallini & Mondelci, 210 Shaw St. About $150,000. Noted July 28.

★**N. Y. Brooklyn**—Apartment — Kaplowitz & Stein, c/o Cohn Bros., archts. and engrs., 361 Stone Ave., will build 4 story, brick, steel and stone, concrete foundation, on Ditmas Ave. About $150,000. Work will be done by day labor.

N. Y., Brooklyn—Bath—E. Riegelmann, boro pres., Boro Hall, opened bids Sept. 7, building public bath, on Metropolitan and Bedford Aves., from Nugent Constr. Co., 505-5th Ave., New York City, $167,875; G. Colon & Co., 81 East 125th St., New York City, $196,623; G. F. Driscoll Co., 115 Schermerhorn St., $178,800. Noted Sept. 1.

★**N. Y., Coney Island**—Bath House—E. Riegelmann, pres. Brooklyn Boro, Boro Hall, let contract building addition to bath house on Concourse Dr. and 5th St., here, to Turner Constr. Co., 244 Madison Ave., New York City, $189,900. Noted Sept. 8.

★**N. Y., New York**—Apartment—Absar Realty Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., will build three 5 story, brick, steel and stone, concrete foundations, on Grand Concourse, Bronx. About $200,000 each. Work will be done by day labor.

★**N. Y., New York**—Apartments—Bway.-Isham St. Corp., c/o G. F. Pelham, archt. and engr., 200 West 72nd St., will build two 5 story, brick, steel and stone, concrete foundations, on Isham St. near Bway. About $200,000 each. Work will be done by day labor.

★**N. Y., New York**—Apartment—Skandia Bldg. Co., Inc., c/o Moore & Landseidel, archts. and engrs., 148th St. and 3d Ave., will building 5 story, 90 x 95 ft., brick, steel and stone, concrete foundation, on Grand Concourse, Bronx. About $150,000. Work will be done by day labor.

★**N. Y., New York**—Theatre—Tyrol Realty Corp., c/o Shape, Bready & Peterkin, archts. and engrs., 220 West 42nd St., let contract building brick, steel and stone, concrete foundation, on Melrose Ave. and 152nd St., Bronx, to Smith & Stone, 25 West 42nd St. About $150,000.

N. Y., Perrysburg—Hospital — Commission of Parks & Buildings, Municipal Bldg., Buffalo, opened bids Sept. 6, constructing additions to present buildings also various new buildings, here, from J. W. Cowper Co., Fidelity Bldg., Buffalo, $689,000; C. H. Everitt, 295 Auburn Ave., Buffalo, $698,000; Harding & Crea, White Bldg., Buffalo, $704,000. Noted Aug. 25.

★**N. J., Princeton** — Apartment — Bd. Trustees Princeton University let contract building 3 story, 35 x 170 ft., brick, steel and concrete addition, rein.-con. flooring, plain foundation, on campus, to Matthews Constr. Co., Alexander St. About $325,000.

★**Pa., Phila**—Office and Store—Churchman, Paul & Ford, archts., 1404 Walnut St., let contract building 12 story, 200 x 200 ft. rein.-con., brick and steel, rein.-con. flooring, rock foundation, on 16th and Locust Sts., to Essick Constr. Co., 4345 Arch St. About $1,000,000. Owner's name withheld.

★**Pa., Phila.**—University—Trustees Temple University, Broad and Berks Sts., let contract building 6 story, 100 x 150 ft., rein.-con., brick and steel, rein.-con. flooring, rock foundation, on Broad and Montgomery Sts., to Ketcham & McQuade, 1029 Brown St. About $740,000. Noted Aug. 11.

★**Pa., Sunbury**—Church—Zion Lutheran Church, c/o C. R. Boyer, 29 South 5th St., let contract building 1 story, 67 x 118 ft. concrete and steel, rein.-con. flooring, on 5th and Market Sts., to Standard Constr. Co., 1713 Sansom St., Phila. About $250,000.

★**D. C., Wash**—Church—All Souls Church, 1748 Lamont St., N. W., let contract building church, to Boyle Robertson Constr. Co., Evans Bldg. About $400,000. Noted May 5.

★**N. C., Raleigh** — Agricultural — W. C. Riddick, pres. State College of Agriculture and Eng., let contract building 3 story, 61 x 184 ft., rein.-con., brick, limestone and terra cotta, on campus here, to C. V. York Constr. Co., Citizens Bank Bldg. About $195,000. Noted Sept. 1.

★**Miss., Columbus** — Dormitory, etc. — Mississippi Bond Impvt. Comn., Jackson, let contracts constructing dormitory and academic building at State College for Women, here, to T. S. Moudy & Co., Chattanooga, Tenn., $128,256 and $71,604 respectively; teacher's home, to I. C. Garber, Jackson, $57,329.

★**O., Alliance**—Club and Office—Eagles Home, 239 Main St., let contract building 5 story, brick and stone, rein.-con. flooring, on Main St., to A. F. Wendling Co., Alliance. About $150,000. Noted Aug. 11.

★**O., Ravenna**—High School—Bd. Educ. let contract building 2 story, 110 x 225 ft., brick and concrete, to Watts-Suhribier Co., 1235 Miani St., Toledo, $359,809. Noted Aug. 4.

★**Mich., Detroit**—Apartment and Store—Vinton Co., 1102 Vinton Bldg., let contract building 3 story, rein.-con., brick and steel, on West Grand Blvd. and Linwood Ave., to Martin & Krausmann Co., 606 Woodward Ave. About $200,000. Noted Feb. 3.

★**Mich., Detroit**—School—Bd. Educ. let contract building 2 story, rein. con., brick and steel, rein.-con. flooring, concrete foundation, on West Grand Blvd. and Moore Pl., to M. A. Mahoney, 400 Penobscot Bldg., $134,094. Noted Sept. 8.

★**Mich., Detroit** — Theatre — Cinderella Theatre Co., c/o C. W. Brandt, archt., 1114 Kresge Bldg., let steel contract for 2 story, 90 x 175 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Jefferson and Coplin Aves., to Lewis-Hall Iron Wks., Ferry Ave. and Grand Trunk Ry. tracks. Total cost $200,000.

★**Ill., Bloomington**—Gymnasium—Illinois Wesleyan University let contract building 2 story, brick and steel, to Building Service Co., Bloomington. About $165,000. Noted Sept. 1.

★**Ill., Chicago** — Apartment — Plotke & Grosby, 2532 North Clark St., let contract building 3 story, 110 x 120 ft., brick, concrete and stone, Stratford Pl. and Bway., to Barrett Constr. Co., 77 East Washington St. About $150,000.

★**Ill., Chicago**—Apartment—C. Poch, 4918 Hermitage Ave., let contract building 3 story, 100 x 150 ft., concrete, brick and stone, at 6341 Magnolia Ave., to W. Yeschek & Co., 3559 Lawrence Ave. About $175,000.

★**Ill., Chicago**—Hotel—Briar Bldg. Corp., 130 North Wells St., let contract building 9 story, 122 x 125 ft., concrete, brick and stone, at 532-40 Briar Pl., to H. C. Jensen, 4948 North Hamlin Ave. About $1,500,000.

★**Ill., Chicago**—Office and Studio—North Michigan Bldg. Corp., 65 East Huron St., let following contracts building 7 story, 44 x 102 ft., rein.-con. and brick, rein.-con. flooring, at 27-29 East Superior St., general contract, to B. W. Constr. Co., 10 South La Salle St.; heating and plumbing, T. J. Douglas & Co., 441 North Dearborn St.; electrical work, to Dearborn Electric Co., 27 West Kinzie St. About $400,000.

★**Ill., Chicago**—School—Bd. Educ., 646 South Clark St., let contract building 3 story, brick, rein.-con. and tile, on Marshfield Ave. and Jonquill Terrace, to C. J. Forsberg, 650 South Clark St. About $270,000.

Buildings (Continued)

★Ill., Newton—High School—Bd. Educ. let contract building 2 story, 78 x 125 ft., rein.-con. and brick, to A. E. Krauel, Danville. About $150,000. Noted Aug. 25.

★Wis., Milwaukee—High School—School Bd. let contracts completing Bay View High School, carpentry and concrete work, to Jahns & Knuth, 1915 Chestnut St., $79,500 and $25,700 respectively; steam heating and mechanical ventilating, to Zuehlke-Stoehr Heating Co., 236 24th St., $63,493.

★Minn., Mankato—High School—Bd. Educ. let general contract building 3 story, 168 x 224 ft. rein.-con., brick, tile and stone, to E. A. Carlson, Mankato, $225,133. Noted Aug. 18.

★Mo., Kansas City—Hotel—Brostrom & Drotts, archts., Reliance Bldg., let contract to Mosby-Goodrich Constr. Co., 904 New York St., building 11 story, 26 x 96 ft., rein.-con., brick and stone, at 15 East 29th St., for W. E. Eysell, 15th and West 10th Sts. About $400,000. Noted Aug. 11.

★Tex., Gainesville—High School—City let contract constructing 4 story, 192 x 200 ft., brick, concrete and steel, to J. E. Johnson Constr. Co., Waco, $162,500. Noted July 7.

★Wash., Seattle — Office — Metropolitan Bldg. Co., Henry Bldg., let contract building 5 story, concrete, steel and terra cotta addition to Cobb Bldg. on 4th and University Sts., to Grant, Smith & Co., Henry Bldg. About $200,000.

★Cal., Los Angeles—Loft—W. W. Paden and associates, 427 Story Bldg., let contract building 10 story, 54 x 130 ft., rein.-con., steel and brick, on 7th and Bexel Sts., to H. Leonardt, H. W. Hellman Bldg. About $280,000.

★Ont., Toronto — Office — Toronto Hydro Electric Comn., Hydro Bldg., and Toronto Transportation Comn., Ryrie Bldg., let contract converting 4 story, concrete, brick and steel building on Yonge and Front Sts., into office, to Carswell Constr. Co., Ltd., 58 Wellington St. E. About $160,000.

Federal Government Work

BIDS DESIRED

Md., Annapolis—Boiler Plant Improvements—Spec. 4500—Until Sept. 28, by the Bureau of Yards & Docks Navy Dept., Wash., D. C., improving boiler plant here.

D. C., Wash.—Dispensary—Spec. 4486—Until Sept. 28, by Bureau Yards & Docks, Navy Dept., Wash., D. C., constructing at Navy Yard, here. Noted Aug. 25.

D. C., Washington—Entrances—Until Sept. 30, by Treas. Dept., constructing entrances from west court into northwest and north central elevator lobbies, Interior Dept. offices, here. J. A. Wetmore, acting superv. archt.

Fla., Key West—Refrigerating Plant—Until Oct. 4, by Treas. Dept., Wash., D. C., Installing in U. S. Marine Hospital, here. J. A. Wetmore, acting superv. archt.

Ky., Dawson Springs — Refrigerating Plant—Until Sept. 21, by Treas. Dept., Wash., D. C., constructing in mess hall and kitchen building, at U. S. Public Health Service Sanatorium, here. J. A. Wetmore acting superv. archt.

Ill., Rock Island—Lock Gates and Valves —Until Sept. 30, at U. S. Engineer Office furnishing for Rock Island Rapids, Le Claire Canal Lock, here; advertised in this issue.

Mo., Springfield—Alterations to Post Office, etc.—Until Oct. 6, by Treas. Dept., Wash., D. C., altering U. S. Post Office and Court House, here. J. A. Wetmore, acting superv. archt.; advertised in this issue.

PRICES AND CONTRACTS AWARDED

(★Indicates Contract Awarded)

★Mass., Boston—Mechanical Equipment —Spec. 4495—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract installing mechanical equipment, piping and alterations to boiler plant, Navy Yard, here, to W. G. Cornell Co., 923-12th St., N. W., Wash., D. C., $98,115 (180 days). Noted Sept. 1.

R. I., Newport—Refrigerating Equipment —Spec. 4499—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids installing in Naval Station Hospital, here, from York Mfg. Co., York Va., $5,385 (60 days); J. Mansville, Inc., Madison Ave. and 41st St., New York City, $5,979 (60 days); Amer. Carbolic Machine Co., Wisconsin Rapids, Wis., $6,100 (60 days). Noted Aug. 25.

★N. Y., New York—Dredging—Spec. 4505 —Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract dredging in Harbor, here, to F. E. Jones Dredging Co., Main and Atlantic Sts., Norfolk, Va., $0.1987 per cu.yd. (90 days). Noted Sept. 8.

★Pa., Phila.—Dredging—U. S. Engineer, 815 Witherspoon Bldg., let contract dredging in lower Delaware River, Liston Lighthouse Range, to Amer. Dredging Co., 410 Mariner & Merchant Bldg., $387,354. Noted Sept. 1.

Pa., Phila.—Dredging—U. S. Engineer, Room 815, Witherspoon Bldg., received bids dredging and rock removal in Schuylkill River, here, (a) Sect. 4, involving (1) 3,170 cu.yd. ledge rock, (2) 4,000 cu.yd. other material, (b) Sect. 5, involving (1) 5,060 cu.yd. ledge rock, (2) 2,300 cu.yd. other material, (c) Dists. 4 and 5 combined, from Arundel Corp., 2 Pratt St., Baltimore, Md., (a1) $17.50 place measurement, (a2) $0.94 scow measurement, (b1) $16.50 (b2) $0.94 (c1) $16.50 (c2) $0.94; Great Lakes Dredge & Dock Co., 17 Battery Pl., New York City, (a1) $40.33 (a2) $0.50 (b1) $31.60 (b2) $0.50 (c1) $27.95 (c2) $0.50; Canal Constr. Co., North Amer. Bldg., (a1) $17.30 (a2) $1.94 (b1) $18.20 (b2) $1.94 (c1) $16.60 (c2) $1.94; P. Sanford Ross, Inc., 277 Washington St., Jersey City, N. J., (c1) $14.89 (c2) $0.40. Noted Aug. 11.

Pa., Pittsburgh—Barges—U. S. Engineer received bids furnishing and delivering 3 steel deck barges, from Dravo Contg. Co., Diamond Bank Bldg., $40,275; Riter Conley Steel Co., Oliver Bldg., $41,361; Amer. Bridge Co., Frick Bldg., $41,625. Noted Aug. 11.

★Md., Annapolis—Ash Bunker, Power House Extension, etc.—Spec. 4487—Bureau Yards and Docks, Navy Dept., Wash., D. C., let contract building ash bunker at Naval Academy, here, power house extension, electric lighting system, and coal bunker at Naval Hospital Reservation, here, to D. M. Andrew Co., Sisson and 26th Sts., Baltimore, $24,000 (120 days). Noted Sept. 8.

Va., Norfolk—Heating System, etc.—Spec. 4512—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids altering and building additions to underground heating and drainage systems, here, from H. E. Crook, 28 Light St., Baltimore, Md., $22,750 time as specified; O. Daschiell & Co., 507 South St., Portsmouth, Va., $23,955 (90 days); Noland-Clifford Co., 320-3rd St., Newport News, Va., $26,985 (90 days). Noted Sept. 1.

★Va., Norfolk—Quay Wall—Spec. 4491—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract constructing section, at Navy Yard, here, to Raymond Concrete Pile Co., 140 Cedar St., New York City, $130,900 (210 days). Noted Sept. 8.

★Tenn., Memphis—Revetment—U. S. Engineer let contract constructing at Augusta Narrows, White River, Arkansas, to Miller-Butlerworth Co., South Trust Bldg., Little Rock, Ark., $11,016.

★Ill., Chicago—Reservoir—Treas. Dept. Wash., D. C., let contract constructing complete (except mechanical equipment), at Broadview Hospital 2, here, to J. J. Croake Co., 2927 Fullerton Ave., $26,777 (90 days). Noted Sept. 8.

★Mich., Detroit—Dredging—U. S. Engineer, 337 Federal Bldg., let contract dredging in West Neebish Channel, St. Marys River, here, to Duluth-Superior Dredging Co., foot of 45th Ave., West Duluth, Minn., $43,080. Noted Sept. 1.

Mich., Detroit—Dredging—U. S. Engineer, 337 Federal Bldg., received bids dredging in St. Clair Flats Canal channels, involving 51,000 cu.yd. sand, silt and clay, with possible overdepth of 61,000 cu.yd., from Greilling Bros., 906 McDonald St., Green Bay, Wis., $0.228 per cu.yd.; J. Rooney, 103 Chamber of Commerce Bldg., Toledo, O., $0.29; Great Lakes Dredge & Dock Co., Williamson Bldg., Cleveland, O., $0.44. Noted Aug. 4.

Cal., Mare Island — Riprapping Dike — Spec. 4390—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids riprapping Dike 12, Navy Yard, here, from (1) work complete, from Healy & Tibbits Constr. Co., 9 Main St., San Francisco, (1) $0.64 (250 days), (2) $0.57 (250 days), (3) $35; Utah Constr, Co., 824 Felon Bldg., San Francisco, (1) $0.75 (250 days), (2) $0.73 (250 days), (3) $30; Shaddock Constr. Co., 525 Market St., San Francisco, (1) $0.78 (250 days, (2) $0.68 (250 days), (3) $15. Noted Aug. 11.

Cal., San Diego—Dredging and Filling, etc.—Spec. 4485—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids dredging and filling, repairing base, Navy Yard, here, from San Francisco Bridge Co., 14 Montgomery St., San Francisco, $0.2015 (200 days); United Dredging Co., 3910 Woolworth Bldg., New York City, $0.213. Noted Aug. 11.

Cal., San Diego—Quay Wall Extension—Spec. 4484—Bureau Yards & Docks, Navy Dept., Wash., D. C., received bids constructing at Naval base, here, (1) work complete, from San Francisco Bridge Co., 14 Montgomery St., San Francisco, (1) $139,000 (180 days), (2) $30, (3) $0.22; Healy-Tibbits Constr. Co., 9 Main St., San Francisco, (1) $135,800 (150 days), (2) $35, (3) $1 deduct $0.25; Hennah Bros., 142 Samson St., San Francisco, (1) $154,000 (150 days), (2) add $40 deduct $23, add $70 deduct $45, (3) add $1.13 deduct $0.65, add $1.75 deduct $1.12. Noted Aug. 11.

Miscellaneous

PROPOSED WORK

Tunnel—Cresson, Pa.—See "Buildings."

Incinerator — East Moline, Ill. — City plans to build incinerator. About $30,000. R. E. Smeary, East Moline.

Transmission Line—Manchester, Okla.— City election Sept. 23 to vote on $27,000 bonds to build transmission line from here to Anthony, Kan. W. B. Rollins, Ry. Exch. Bldg., Kansas City, Mo., engr.

Hydro-Electric System—Dresden, Ont.— Camden Twp. plans to build hydro-electric system. E. R. Fowler, 190 University Ave., Toronto, engr.

Harbor Improvements—Victoria, B. C.— Dominion Government, Ottawa, plans to improve Victoria Harbor, involving removal of rocks and dredging. About $80,000.

BIDS DESIRED

Incinerator—Brooklyn, N. Y.—Until Sept. 21, by Dept. Pub. Welfare, Municipal Bldg., New York City, building garbage incinerator at Kings Co. Hospital, here. B. S. Coler, comr.

Steam Rollers, etc.—New Orleans, La.— A. Murphy, comr. Finance Dept., receiving bids furnishing one 10 ton steam roller, 2 power scarifiers and 2 road graders.

Dragline Machine — Greenville, Miss. — Until Oct. 4, by Bd. Drainage Comrs. Washington Co., furnishing dragline machine. O. C. Kulicka, secy. and treas.; advertised in this issue.

Tunnel—Seattle, Wash.—Until Sept. 30, by Pub. Wks., building tunnel for Gorge Creek plant of Skagit River development, 1,100 ft. long, involving 4,820 cu.yd. open cut excav., 282 lin.ft. tunnel construction, 272 lin.ft. temporary water tunnel, 10,978 cu.yd. excav. for main tunnel, 10,978 lin.ft. concrete lining for main tunnel, 10,830 cu. yd. excav. for surge tank and riser, 1,060 cu.yd. concrete lining for tank and riser, 930 lin.ft. concrete lining for penstock connections and bulkheads 2,300 cu.yd. excav. for permanent intake, 235 cu.yd. concrete lining for permanent intake, 75,000 ft. timber lining for temporary and construction tunnels, etc. About $2,000,000. C. F. Uhden, 314 29th St., engr.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★Coal Plant, etc.—Quincy, Mass.—City Fuel Co., 18 Post Office Sq., Boston, let contract rebuilding coal plant, here, also building wharf on Quincy Point, to J. H. Proctor & Co., Old South Bldg., Boston Cost between $90,000 and $100,000.

★Heating and Ventilating Apparatus, etc. —Newtown (Flushing P. O.) N. Y.—R. W. Rodman, supt. Plant Operation of School Bldgs. of Bd. Educ., Municipal Bldg., New York City, let contract installing heating and ventilating apparatus in Newton High School, on Etna Pl., Gerry Ave., Chicago and Parcell Sts., here, to Gillis & Geoghegan, 537 West Bway., New York City, $89,434; temperature regulation apparatus, to Bishop & Babcock, 376 Lafayette St., New York City, $6,500. Noted Sept. 8.

★Grain Elevator—Baltimore, Md.—Western, Maryland R.R. Terminal Co., Charles and Saratoga Sts., let general contract building grain elevator, 1,000,000 bushel capacity, to J. Stewart & Co., 30 Church St., New York City; piling and foundations, to A. Miller, Dundalk. Noted Aug. 11.

Garbage Collection Trailer System—New Orleans, La.—City let contract furnishing 48 four wheel trailers and 96 removable containers, to Greenlaw Truck & Tractor Co., 1525 Canal St., $33,840 and $4,800 respectively; locomotive crane, to McMyler Interstate Co., Stop 27, A. B. & C. Electric Ry., Cleveland, O., $12,975. Noted Aug. 18.

★Coal Handling Plant—Sarnia, Ont.— Imperial Oil Co., 115 Mitton Ave. N., let contract building coal handling plant on River St. Clair, to Sarnia Bridge Co., 176 North St. About $50,000.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Sept. 26	Aurora, Ill. Adv. Sept. 22.	Sept. 22
Sept. 26	St. George, S. I., N. Y.	Sept. 22
Sept. 26	New York, N. Y.	Sept. 22
Sept. 27	Pryor Creek, Okla.	Sept. 22
Sept. 27	Dayton, Ia.	Sept. 22
Sept. 28	Boone, N. C.	Sept. 22
Sept. 29	New York, N. Y.	Sept. 22
Sept. 30	Brooklyn, N. Y.	Sept. 22
Sept. 30	Long Island City, N. Y.	Sept. 22
Oct. 2	Greybull, Wyo.	Sept. 22
Oct. 7	Collinsville, Ill. Adv. Sept. 1 to 22.	Sept. 1

SEWERS

Bids Close		See Eng. News-Record
Sept. 26	Lansing, Mich. Adv. Sept. 22.	Sept. 22
Sept. 26	Osborn, O.	Sept. 22
Sept. 28	Port Washington, Wis.	Sept. 22
Sept. 28	Maumee, O.	Sept. 22
Sept. 29	Montreal, Que.	Sept. 22
Sept. 30	Phila., Pa.	Sept. 22
Oct. 1	Dayton, O.	Sept. 22
Oct. 3	Brownville, N. Y. Adv. Sept. 15 and 22.	Sept. 15
Oct. 4	Clifton, N. J.	Sept. 8
Oct. 4	Toledo, O. Adv. Sept. 8 to 22.	Sept. 15
Oct. 6	Shaker Heights, O.	Sept. 22
Oct. 11	Passaic, N. J.	Sept. 22
Oct. 11	Hagerstown, Md. Adv. Sept. 15 and 22.	Sept. 22

BRIDGES

Bids Close		See Eng. News-Record
Sept. 27	Cadillac, Mich.	Sept. 22
Sept. 28	Kentucky	Sept. 22
Sept. 30	Sunderland, Mass. Adv. Sept. 15 and 22.	Sept. 22
Oct. 2	Sauk City, Wis.	Sept. 15
Oct. 3	San Bernardino, Cal.	Sept. 22
Oct. 3	Wyoming	Sept. 22
Oct. 4	Illinois	Sept. 22
Oct. 6	Springfield, Mass.	Sept. 22
Oct. 14	Detroit, Mich. Adv. Sept. 22.	Sept. 22

RAILWAYS

Bids Close		See Eng. News-Record
Sept. 28	Massachusetts	Sept. 22

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Sept. 26	Mayville, Wis.	Sept. 22
Oct. 4	Trenton, N. J. Adv. Sept. 8 to 22.	Sept. 8
Oct. 4	Boise, Idaho	Sept. 15
Oct. 12	Baton Rouge, La. Adv. Sept. 15 and 22.	Sept. 22

STREETS AND ROADS

Bids Close		See Eng. News-Record
Sept. 24	Bedford, O.	Sept. 22
Sept. 26	California	Sept. 15
Sept. 26	Dayton, O.	Sept. 22
Sept. 26	Connecticut Adv. Sept. 22.	Sept. 22
Sept. 26	Osborn, O.	Sept. 22
Sept. 26	Los Angeles, Cal.	Sept. 22
Sept. 26	Canton, Tex.	Sept. 22
Sept. 27	New Orleans, La.	Sept. 1
Sept. 27	Long Island City, N. Y.	Sept. 22
Sept. 27	Amite, La.	Sept. 8
Sept. 27	Minnesota	Sept. 15
Sept. 27	Pennsylvania Adv. Sept. 8 to 22.	Sept. 15
Sept. 27	Maryland Adv. Sept. 22.	Sept. 22
Sept. 27	Mexico, Mo.	Sept. 22
Sept. 27	Jefferson City, Mo.	Sept. 22
Sept. 27	Columbus, Kan.	Sept. 22
Sept. 27	Colorado	Sept. 22
Sept. 28	Maplewood, Mo.	Sept. 8
Sept. 28	Kentucky	Sept. 22
Sept. 28	Northwood, Ia.	Sept. 22
Sept. 28	Brooklyn, N. Y.	Sept. 22
Sept. 29	Montreal, Que.	Sept. 22
Sept. 30	Emporia, Kan.	Sept. 8
Sept. 30	Troy, Kan.	Sept. 8
Sept. 30	Moundsville, W. Va.	Sept. 22
Oct. 3	Klamath Falls, Ore. Adv. Sept. 8 to 22.	Sept. 8
Oct. 3	Harrisonburg, La.	Sept. 8
Oct. 3	California	Sept. 22
Oct. 4	Minnesota	Sept. 15
Oct. 4	Illinois	Sept. 22
Oct. 4	Massachusetts	Sept. 22
Oct. 5	Providence, R. I. Adv. Sept. 15 and 22.	Sept. 22
Oct. 6	Webster Springs, W. Va.	Sept. 22
Oct. 6	Pecos, Tex.	Sept. 22
Oct. 7	Belleville, Kan.	Sept. 8
Oct. 11	Leavenworth, Kan.	Sept. 8
Oct. 13	Weehawken, N. J.	Sept. 15
Oct. 14	Belleville, Kan.	Sept. 15
Oct. 17	Alabama	Sept. 15

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Sept. 26	Madison, Wis.	Sept. 8
Sept. 27	Moline, Ill.	Sept. 22
Sept. 29	Oak Park, Ill.	Sept. 22

BUILDINGS

Bids Close		See Eng. News-Record
Sept. 24	Detroit, Mich.	Sept. 22
Sept. 26	Cheyenne, Wyo.	Sept. 1
Sept. 26	Uhrichsville, O.	Sept. 22
Sept. 26	Detroit, Mich.	Sept. 22
Sept. 27	Ann Arbor, Mich.	Sept. 8
Sept. 27	Des Moines, Ia.	Sept. 8
Sept. 27	St. Louis, Mo.	Sept. 22
Sept. 27	Danville, Ill.	Sept. 22
Sept. 27	Wakefield, Mass.	Sept. 22
Sept. 27	Athol, Mass.	Sept. 22
Sept. 28	Rochester, N. Y.	Sept. 8
Sept. 29	Wichita, Kan.	Sept. 22
Sept. 30	Shelton, Conn.	Sept. 8
Sept. 30	Memphis, Tenn.	Sept. 15
Sept. 30	Portsmouth, O.	Sept. 22
Oct. 1	Leavenworth, Kan.	Sept. 22
Oct. 1	Rosedale, Kan.	Sept. 22
Oct. 1	Milwaukee, Wis.	Sept. 22
Oct. 4	Pineville, La.	Sept. 15
Oct. 10	Harrisburg, Ill.	Sept. 22
Oct. 11	Providence, R. I.	Sept. 22
Oct. 24	Cleveland, O.	Sept. 8
Feb. 1	Williamsport, Pa.	Sept. 8

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Sept. 26	Hydraulic Dredge — Phila., Pa. Adv. Sept. 1 to 22.	Sept. 1
Sept. 26	Riprap — Tompkinsville, N. Y.	Sept. 22
Sept. 27	Addition to Boiler House, etc. —Phila., Pa. Adv. Sept. 8 to 22.	Sept. 8
Sept. 28	Power Plant Impvts.—Annapolis, Md.	Sept. 8
Sept. 28	Dispensary—Wash., D. C.	Sept. 15
Sept. 29	Sewage Ejector — Stockton, Cal.	Sept. 22
Sept. 29	Tank and Tower—Alexandria, La.	Sept. 22
Sept. 30	Gate Locks and Valves—Rock Island, Ill. Adv. Sept. 8 to 22.	Sept. 8
Sept. 30	Entrances—Wash., D. C.	Sept. 15
Oct. 1	Hospital—Marion, Ind.	Sept. 22
Oct. 1	Hospital — Leavenworth, Kan.	Sept. 22
Oct. 1	Hospital—Milwaukee, Wis.	Sept. 22
Oct. 1	Hospital—Dayton, O.	Sept. 22
Oct. 4	Refrigerating Plant—Key West, Fla.	Sept. 15
Oct. 5	Power House, etc.—Chemawa, Ore.	Sept. 22
Oct. 6	Alterations to Post Office, etc.—Springfield, Mo.	Sept. 15
Oct. 10	Plumbing System—Memphis, Tenn. Adv. Sept. 22.	Sept. 22
Oct. 12	Lighting Plant, etc.—Port Townsend, Wash.	Sept. 22
Oct. 15	Revetment — Jacksonville, Fla. Adv. Sept. 22.	Sept. 22

MISCELLANEOUS

Bids Close		See Eng. News-Record
Sept. 26	Fiber Paving Bricks—St. Paul, Minn.	Sept. 22
Sept. 28	Core Stone, etc.—Coney Island (Brooklyn P. O.) N. Y.	Sept. 8
Sept. 28	Crane—New York, N. Y. Adv. Sept. 1 to 22.	Sept. 1
Sept. 28	Eyebolts—Milwaukee, Wis.	Sept. 22
Sept. 29	Park—Brooklyn, N. Y.	Sept. 22
Sept. 30	Breakwater—Coburg, Ont.	Sept. 8
Sept. 30	Tunnel—Seattle, Wash.	Sept. 8
Sept. 30	Asphalt Road Oil—Brooklyn, N. Y.	Sept. 22
Sept. 30	Motor Driven Trucks—New York, N. Y.	Sept. 22
Oct. 3	Gravel—Leesville, La.	Sept. 22
Oct. 4	Cranes, etc.—Stapleton, S. I., N. Y.	Sept. 8
Oct. 4	Dragline Machine—Greenville, Miss. Adv. Sept. 15 and 22.	Sept. 15

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Perrysburg—City of Buffalo having plans prepared for circular rein.-con. reservoir, 1,000,000 gal. capacity, also 5,220 lin. ft. pipe line, here. About $60,000. G. C. Andrews, Municipal Bldg., Buffalo, water comr.

Tex., Albany—City voted $100,000 bonds to improve waterworks. Address Mayor.

Minn., North Branch—Village, c/o A. F. Johnson, recdr., had plans prepared for 40 blocks mains. About $30,000. Druar & Milinowski, 500 Globe Bldg., St. Paul, engrs.

Kan., Derby—City defeated $25,000 bond issue for new waterworks system. W. B Rollins, Co., Ry. Exch. Bldg.,, Kansas City, Mo., engrs. Noted July 21 .

Kan., Neodesha—City election soon to vote on $150,000 bonds to improve waterworks and electrical plant. Black & Veach, Mutual Bldg., Kansas City, Mo., engrs.

Okla., Fairfax—City had plans prepared extending mains and sewers, building sewage disposal plant and White Way. About $85,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, consult. engrs. Noted July 7.

Waterworks (Continued)

Okla., Fairland—City having plans prepared for addition to waterworks. About $60,000. H. G. Olmstead & Co., 415 Oil Exch. Bldg., Oklahoma City, engrs.

Okla., Granite—City election Sept. 29, to vote on $65,000 bonds to extend waterworks. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma City, consult. engrs. Noted Aug. 11.

BIDS DESIRED

N. Y., Brooklyn—Until Sept. 30, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, hauling and laying water mains in Coney Island, Ocean, Ralph, Riverdale, Snediker and Van Sinderen Aves., Aves. F. H. and K, East 19th, East 83rd, 58th, Douglass and Herzl Sts., also Mansfield Pl., here.

N. Y., Long Island City—Until Sept. 30, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York City, hauling and laying water mains in Skillman and Van Alst Aves., 1st Ward, Hammell, Oak, Peck and 28th Aves., 25th, 136th, 137th, 138th and 153rd Sts., 3rd Ward, here.

N. Y., New York—Until Sept. 26, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., hauling and laying water mains in Gun Hill Rd., Bronx Boro.

N. Y., New York—Until Sept. 29, by Bd. Purch., Municipal Bldg., furnishing and delivering c.i., special valve box castings, valves and double nozzle fire hydrants, to Dept. Water Supply, Gas & Electricity. G. A. Whalen, comr. Plant & Structures, chn.

N. Y., S. I., St. George—Until Sept. 26, by C. D. Van Naure, pres. Richmond Boro, Boro Hall, laying water mains in Crescent, Guyon, Garretson and Wandel Aves., Nicholas St. and Evelyn Pl. About $15,000.

N. C., Boone—Until Sept. 28, by H. A. Underwood, engr., Joint Building Com., 912 Commercial Bank Bldg., Raleigh, building 250,000 gal. rein.-con. reservoir and laying mains, on campus, at Appalachian Training School, here. B. B. Dougherty, supt.

O., Shaker Heights—See "Sewers."

Ill., Aurora—Until Sept 26, by city, laying c.i. water supply pipe lines, including valves and fire hydrants, in Water Dist. 1. W. E. Deuchler, city engr; advertised in this issue.

Ia., Dayton—Until Sept. 27, by city, laying 4-6 in. c.i. water mains. About $25,000. O. S. Larson, clk. Engineer's name withheld.

Wyo., Greybull—Until Oct. 2, by H. Higgins, town clk., improving water works, including elevated steel tank, 200,000 gal. capacity, 145 ft. high, 27,630 ft. 2-8 in. pipe, etc. About $75,000. G. W. Zorn, Greybull, engr.

Okla., Pryor Creek—Until Sept. 27, by H. E. Rogers, clk., improving waterworks, building chemical house and laying 6 mi. transmission lines. About $35,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs. Noted Aug. 25.

Okla., Sayre—Until Oct. 25, by W. E. Simmonds, city clk., constructing waterworks and sewerage systems and light and power plants, involving 1 mi. water mains, 1 mi. sewers, 200,000 gal. rein.-con. reservoir, etc. About $75,000. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma City, consult. engrs. Noted July 14.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★N. Y., Scarsdale—Bd. Water Comrs., Village Hall, Popham and Post Rds., let contract for pipe line extensions, Schedule A, to Beaver Eng & Contg. Co., 51 Chambers St., New York City, $96,836. Noted Aug. 11.

Pa., Phila.—City received bids for (1) improving Lardners Point pumping station, Contr. 513, (2) distribution and aerating flumes, Contr. 514, (3) furnishing and laying terra cotta ducts for electric wires from Belmont pumping station to filters, Contr. 517, (4) installing pumping units at Belmont station, Contr. 519, (5) furnishing and installing coal handling apparatus at Torresdale station, Contr. 520, (6) concrete valve boxes, Contr. 526, (7) laying 20 in. c.i. pipe, Contr. 527, (8) electric cable, (a) 8,224 ft. 00 B. E. S., (b) 8,224 ft. 1 B. E. S., (c) 925 ft. 2 B. E. S., (d) 350 ft. 3 B. E. S., Contr. 528, (9) c.i. pipe, from Nelson Pedley Constr. Co., Lincoln Bldg., (1) $19,980. Mitchell-Houseworth Co., Real Estate Trust Bldg., (1) $21,157. G. H. Evans, 45 North 13th St., (1) $25,565. M. and J. B. McHugh, 892 North Markoe St., (2) $36,668, (6) $45,804, (7) $54,375. Munday Paving Co., Colonial Trust Bldg., (2) $52,586. E. Fay & Son, 2 South Mole St., (2) $44,337. F. T. Buckins, Lincoln Bldg., (3) $14,820. E. D. Vare, Lincoln Bldg., (3) $17,460. McCool Constr. Co., 1715 Sansom St., (3) $16,980. Dravo-Doyle Co., Diamond Bank Bldg., Pittsburgh, (4) $18,400. Frederick Iron & Steel Co., 235 Harrison St., Baltimore, Md., (4) $16,800. Guarantee Constr. Co., Phila., (5) $24,660. Specialty Eng. Co., Trenton and Allegheny Aves., (5) $16,075. R. H. Beaumont Co., 413 Arch St., (5) $23,776. Fish-Rutherford Co., Real Estate Trust Bldg., (6) $48,668, (7) $55,673. J. J. McHugh, 1617 Race St., (7) $49,318. General Electric Co., Witherspoon Bldg., (8a) $3,972, (8b) $3,368, (8c) $316, (8d) $91. Standard Underground Cable Co., North Amer. Bldg., (8a) $4,433, (8b) $3,965, (8c) $413, (8d) $175. Donnelson Iron Co., Phila., (9) $63,520. United States C. I. Pipe Co., 15th and Chestnut Sts., (9) $63,680.

★Ill., Berwyn—See "Sewers."

★Mo., Skidmore—City let contract building waterworks system, to Ladd Constr. Co., Peotone, Ill. About $25,000. Noted July 14.

Sewers

PROPOSED WORK

N. J., Union Hill (Weehawken, P. O.)—Town plans to build 2,600 ft. 18 in. vitr. sewer in Hackensack Plank Rd. between Bergenline and Pleasant Aves. About $30,000. H. Thourot, 414 Lewis St., engr.

Tex., Brownsville—City election Sept. 27 to vote on $75,000 bond issue to build sewerage disposal plant, etc. J. O. Spencer, city engr.

Tex., Brownwood—City plans to build 18 in. sewers, 6 ft. deep. City will buy ditching machine or let contract for digging. About $100,000. J. R. Looney, city mgr.

O., Dayton—City having plans prepared for 1,000 ft. 66 in. concrete storm sewers in canal from 3rd to Sears Sts., including erection of storm water pumping station. About $50,000. G. Baker, city engr.

Mich., Detroit—City plans to build Lateral Sewers 3501, 3502, 3503, 3511, 3519, 3524, 3525, 3526, 3527, 3528, 3530 and 3533, vitr. crock. C. W. Hubbell, city engr.

Ill., Phoenix (Thornton P. O.)—Bd. Local Impvts. having plans prepared for sewerage system. About $30,000. A. W. Hersey, Harvey, engr.

Ill., Rockford—City plans to build double intercepting sewerage system and disposal plant. About $820,000. O. B. Hand, city engr.

Wis., Mosinee—City voted $41,000 bonds to build sewerage system. E. Bachman, clk. Engineer not selected.

Wis., Valders—City having plans prepared for 2½ mi. sewerage system in Main St., including sanitary and storm sewers. About $35,000. L. I. Pentzien, Savings Bank Bldg., Manitowoc, engr.

Ia., Dubuque—City having plans prepared for 24, 26, 28 and 54 in. sanitary sewers in White St. from 15th to 6th Sts. About $150,000. W. Cullen, city engr.

Okla., Fairfax—See "Waterworks."

Okla., Pauls Valley—City plans election to vote on $40,000 bonds to build 18-24 in. storm sewers. V. V. Long & Co., 1300 Colcord Bldg., Oklahoma City, consult. engrs.

Ont., St. Thomas—City plans to build 6,000 ft. 12 and 15 in. vitr. tile storm sewers in various streets. About $30,000. W. C. Miller, City Hall, engr.

BIDS DESIRED

N. J., Passaic—Until Oct. 11, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, constructing part of Sect. 19, Garfield-Wallington-Passaic Branch Intercepting Sewer, consisting of Wallington River Crossing, here, and in Washington Boro, involving earth excav., dredging and refilling, in trench and open excavations for 36 in. c.i. pipe, laying 36 in. c.i. pipe across Passaic River, 2,000 lb. steel for concrete reinforcement and other purposes, etc. J. R. Van Duyne, ch. engr.

Pa., Phila.—Until Sept. 30, by F. H. Caven, dir. Pub. Wks., building sewer in Ashdale St. between terminus near Front and Fisher Sts., 12 ft. rein.-con., Erie Ave. from B St. to Phila. & Bustleton R.R., 5 ft. diameter, brick, Parker St. from Penrose Pl. to Colorado St., 5 x 7 ft., Packer St. from 22nd St. to Penrose Pl., Moyamensing Ave. from Penrose Pl. to Colorado St., 7 x 10 ft., 9th St. from Moore to Tasker Sts. 2 x 3 ft. brick. F. Dunlap, Room 216, City Hall, engr.

Md., Hagerstown—Until Oct. 11 by Sewerage Comn., Police Headquarters Bldg., constructing sanitary sewers. E. L. Heard, secy.; advertised in this issue.

O., Dayton—Until Oct. 1, by F. A. Kilmer, clk. Montgomery Co., building 15,527 lin.ft. 8-20 in. vitr. sewer in East Park Sanitary Sewer Dist. 1. About $150,000. K. B. Allen, 607 U. B. Bldg., engr. Noted Jan. 6.

O., Maumee—Until Sept. 28, by F. C. Lautzenheiser, village clk., building Branch Sewer 1 and Local Sewer 1 in Subdistrict 1 of Key St., also Branch Sewer 1 and Local Sewer 1 in Subdistrict 2 of Key St., involving 9,552 lin. ft. 10-48 in. sewer pipe, etc. G. Champe, Toledo, civil engr.

O., Osborn—Until Sept. 26, by Osborn Removal Co. furnishing and laying 5,250 ft. 12-24 in. vitr. storm sewers. About $35,000. Cellarius & Dressler, 1001 Commercial Bldg., Dayton, engrs.

O., Shaker Heights—Until Oct. 6, by village, building storm and sanitary sewers and 10 in. c.i. water main in Storer and Helen Aves. About $34,000. F. A. Pease Eng. Co., Marshall Bldg., Cleveland, engrs.

Mich., Lansing—Until Sept. 26, at office of J. A. Parsons, city clk., building sewers in 47th Sewer Dist.; advertised in this issue.

Wis., Port Washington—Until Sept. 28, by A. Lynch, city clk., laying 1.9 mi. 6-10 in. sewers in Main St., and building small sewage disposal plant. About $50,000. J. Donohue, 608 North 8th St., Sheboygan, engr.

Okla., Sayre—See "Waterworks."

Que., Montreal—Until Sept. 29, by Chairman Administrative Com., building sewers in Rosedale Ave., St. Charles and St. Zotique Sts. About $30,000. A. E. Doucet, dir. Dept. Pub. Wks.

PRICES AND CONTRACTS AWARDED

(★Indicates contract awarded)

★N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, let contracts to Tomasetti & Co., Inc., 1133-60th St., building sewers in Kemmit Pl., cost 77.78 per cent of engineers estimate, 61st St., 69.69 per cent, 73rd St., 71.71 per cent; to Murphy Bros., 8856-26th Ave., 76th St., 75 per cent; to P. J. Donlan Contg. Co., 823-3rd St., West 37th St., 91.7 per cent; to J. J. Guinan Contg. Co., 2134 Gravesend Ave. West 35th St., etc., 89 per cent. Noted Sept. 8.

N. J., Passaic—Passaic Valley Sewerage Comrs., 128 Market St., Newark, opened bids Sept. 13, building part of Sect. 19 Lodi St. River-Crossing, involving (1) lump sum earth excav., dredging and refilling in trenches, etc., (2) lump sum, laying 42 in. c.i. pipe line across Passaic River, etc., (3) 350 cu.yd. concrete masonry, (4) 80 cu.yd. brick masonry, etc., from Bay State Dredging & Constr. Co., East Boston, Mass., (1) $28,000, (2) $5,390, (3) $22.50 per cu.yd., (4) $30, total cost $53,515; L. B. Harrison & Broadhurst Co., Paterson, (1) $40,510, (2) $5,110, (3) $15.40, (4) $30.05, $60,364; T. A. Scott Co., 292 Pequot Ave., New London, Conn., (1) $29,800, (2) $6,950, (3) $27.60, (4) $35.20, $60,573. Noted Aug. 25.

N. J., West Wildwood—Boro. received bids building 16,000 ft. 6-12 in. vitr. sewers and sewage treatment plant, from Craigthorn & Nickerson, Wildwood. About $32,000.

O., West Park—City received bids building sewers and water mains in Normandy, Belmar, Ernadale, Lauerdale, Silverdale, Derby, West 158th and West 159th Sts., from A. Hosine, 635 Bradley Court, Cleveland. About $32,000. Noted Sept. 15.

★Mich., Detroit—City let contracts to Lennane & McIlvenna, 1205 Book Bldg., building Sect. 2, Highland Park Arm Sewer, cost $238,935; Jeynes & Affeld, 1208 Ford Bldg., Sect. 5 Jos. Campau Ave. Sewer, $227,004; J. A. Mercier, 216 Hammond Bldg., Sect. 5 Bates St. Sewer, $293 452, Sect. 3, Gratiot Ave. Sewer, $82,039; W. Blanck & Co., 827 Ford Bldg., Marquette

Sewers (continued)

Ave. Arm of 3rd St. Sewer, $65,861, Van Dyke Arm of Lynch Rd. Sewer, $61,640. Noted Sept. 15.

★Ill., Berwyn—City let contract laying 10-14 in. glazed sewer pipe and 4-6 in. c.i. water mains in various streets, to C. M. Porter, 111 West Washington St., Chicago. About $27,000.

★Ill., Rock Island—City let contract laying 12-14 in. glazed sewer pipe and 4-6 in. c.i. water mains in 20th St. to P. F. Trenkenschuh, 1535 14th St., $27,106.

★Mo., Independence—City let contract to Ray & Son, Baxter Springs, Kan., building 3 sewage disposal plants and ejector stations, involving furnishing and laying 4,530 lin. ft. 8 in. standard vitr. pipe, $0.60 per ft., 358 lin. ft. 15 in. $1.32, furnishing and laying 3,180 lin. ft. 6 in. Class A c.i. pipe, $1.55, 225 lin.ft. 8 in. $1.85, constructing North Sewage Treatment plant, $18,375, East Sewage Treatment plant, $10,229, South Sewage Treatment plant, $36,975, etc., total cost $84,842. Noted July 28.

★Mo., Mexico—City let contract building sewage disposal plant and outfall sewers, to Reed & Wheelock, Clay Center, Kan., $24,500. Noted Aug. 25.

★Cal., Burbank—City let contract building sewerage system, to T. S. Reynolds, Metropolitan Bldg., Los Angeles, $35,450. Noted Sept. 15.

Bridges

PROPOSED WORK

Mass., Holyoke—Bd. Pub. Wks. plans to build concrete and steel highway bridge on Shepherd St. About $25,000. T. J. McCarthy, City Hall, engr.

Pa., Johnstown—City plans to build 225 ft. concrete bridge, iron girders, 30 ft. roadway, 10 ft. sidewalks over Stony Creek on Haynes St. About $100,000. H. L. Wilson, City Hall, engr.

La., Lake Charles — See "Streets and Roads."

Kan., Washington—Washington Co. had plans prepared constructing Cemetery Bridge over Meyer Creek, 40 ft. rein.-con. deck girder span, 24 ft. roadway; Dean Bridge over Joy Creek, 45 ft. deck girder span, 20 ft. roadway; Scruby Bridge over Devil Creek, 45 ft. deck girder type span, 20 ft. roadway. J. C. Hennon, co. engr.

Missouri—State Highway Dept., Jefferson City, plans to build rein.-con. bridge over Bear Creek, on Sta. 809 plus 82, rein.-con. bridge over Brady Branch, on Sta. 630 plus 99, and rein.-con. bridge on Sta. 913 plus 40, Federal Aid Project 180, Buchanan Co., involving 87.1 cu.yd. Class A and 564.8 cu.yd. Class B concrete and 30,300 lb. reinforcing steel, etc., cost $36,756; steel bridge over Osage River, Federal Aid Project 166, Vernon Co., 105.5 cu.yd. Class A, 12.5 cu.yd. Class B and 145.3 cu.yd. Class C concrete, 19,410 lb. reinforcing and 62,000 lb. fabricated structural steel, etc., $20,000. A. Graham, state highway engr.

Colorado—State Highway Dept., Denver, had plans prepared constructing 200 ft. steel bridge over Fountain River, El Paso Co. About $45,000. L. D. Blauvelt, State Museum Bldg., Denver, engr.

BIDS DESIRED

Mass., Springfield—Until Oct. 6, by City Clerk, Administration Bldg., strengthening bridge, 1349 ft. long, 21 ft. wide, over Connecticut River, between here and Agawam. About $60,000.

Mass., Sunderland — Until Sept. 30, at office of T. L. Warner, clk of seelctmen, strengthening floor beams, replacing floor joists and planking highway bridge across Connecticut River; advertised in this issue.

Kentucky — Until Sept. 28, by State Highway Dept. Old Capitol Bldg., Frankfort, building 3 bridges on Mayo Trail, Federal Aid Project 56, Lawrence Co., one bridge over East Fork Creek, Sta. 131 plus 95, involving 144 cu.yd. Class A concrete, 49,039 lb. structural and 12,340 lb. reinforcing steel, etc., bridge over Cat Creek, Sta. 531 plus 15,400 cu.yd. Class A and 71 cu.yd. Class B concrete, 27,952 lb. reinforcing and 77,500 lb. structural steel, 25,130 lb. steel in Cylinders, etc., bridge over Big Blaine Creek, Sta. 656 plus 05, 177 cu.yd. Class A and 175 cu.yd. Class B concrete 21,241 lb. reinforcing and 109,100 lb. structural steel, 13,560 lb. steel in cylinders, etc.; 80 ft. span bridge over Big Creek, Sta., 708 plus 00, on Pikesville-Williamson Rd., Federal Aid Project 52, Pike Co., 19 cu.yd. Class B and 33 cu.yd. Class A concrete, 77,500 lb. structural and 4,374 lb. reinforcing steel, etc.; 80 ft. steel span bridge over Hites Run, Sta. 3,785 plus 40, on Louisville-Paducah Rd., Federal Aid Project 37, Breckinridge Co., 203 cu.yd. Class B and 33 cu.yd. Class A concrete, 77,500 lb. structural and 5,374 lb. reinforcing steel, etc.; over Indian Creek, Sta. 440 plus 20, on Louisville-Paducah Rd., Federal Aid Project 46, Hancock Co., 58 cu.yd. Class A and 112 cu.yd. Class B concrete, 32,151 lb. reinforcing and 50,600 lb. structural steel, etc. J. S. Boggs, state highway engr.

Mich., Cadillac—Until Sept. 27, by State Highway Dept., at dist. office, building Bridge 831101, over Manistee River, Wexford Co. Work involves 297.4 cu.yd. rein.-con., 311 cu.yd. concrete and 38 500 lb. steel.

Mich., Detroit—Until Oct. 14, by Comrs. Wayne Co. covering operators houses and enclosure walls of double leaf bascule bridge crossing River Rouge; advertised in this issue.

Illinois—Until Oct. 4, by Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, constructing 144 concrete and 8 steel bridges, 6 substructures and 7 superstructures for steel bridges. C. Older, ch. highway engr.

Wyoming—Until Oct. 3, by State Highway Dept., Cheyenne, constructing bridge over Cheyenne River, consisting of two 130 ft. steel spans, 24 ft. high, also concrete abutments and approaches, involving 10,000 lb. reinforcing steel, 127 tons structural steel, 6,200 cu.yd. earth, etc. About $40,000. Z. E. Sevison, state highway engr.

Cal., San Bernardino—Until Oct. 3, by J. Osborn, city clk., constructing three 50 ft. span rein.-con. arch bridge, 60 ft. wide, over Lytle Creek, on Mt. Vernon Ave. C. E. Johnson, City Hall, engr. Noted July 14.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Mass., Holyoke—Bd. Pub. Wks. let contract building two rein.-concrete highway bridges over canal, one on Lyman St. and other on Jackson St., to M. J. Walsh & Sons, 1412 Dwight St. About $35,500 and $25,000 respectively. Noted Jan. 20.

★Mass., Newburyport—Essex Co. (Salem) let contract building 765 ft. concrete highway bridge between here and Plum Island, 24 ft. wide, to New England Foundation Co., 70 Kilby St., Boston, $55,960; 110 ft. steel draw span for above bridge, to Lackawanna Bridge Co., 40 Central St., Boston, $17,903. Noted Aug. 25.

★Mass., Northampton—Bd. Pub. Wks. let contract building 2 concrete bridges and reinforcing Canal Bridge in Florence Sect. and Hotel Bridge in Leeds Sect., to D. O'Connell's Sons, 480 Hampden St., Holyoke. Cost between $35,000 and $40,000.

★Pa., Darby—Delaware Co. (Media) let contract building rein.-con. arch bridge, 110 ft. span over Darby Creek, to Davis & Savine, 6233 Sansom St., Phila. About $53,000.

★Pa., Hummelstown — Dauphin Co. let contract rebuilding Bridge 125-126 over Swarta Creek, rein.-con., to S. W. Shoemaker & Son, 1545 North 6th St., Harrisburg. About $115,700. Noted Sept. 1.

★O., Cleveland—Cuyahogo Co. let contract building substructure for lift bridge over Cuyahoga River, on Alexander Rd., to T. B. Husband, 3166 Redwood Ave., $41,350; superstructure, to King Bridge Co., East 69th St., $23,000. Noted Sept. 15.

★O., Columbus—Franklin Co. let contract building substructure of 148 ft. bridge over Sciota River, on Sandusky St., to H. B. Waters and A. J. Freemas, Clinton Bldg., $15,867; superstructure, to E. M. Scully, 1431 Eastwood Ave., $19,145. Noted Aug. 25.

★Ill., Danville—Vermillion Co. let contract building East Georgetown Bridge, rein.-con. arch, four 55 ft. spans, 18 ft. roadway, in McKendree Twp., to Ollendorf Constr. Co., Palatine, $27,300. Noted Sept. 8.

★Wis., Appleton—City let contract building 385 ft. rein.-con. bridge on Lawe St., to Wausau Iron Wks., Wausau, $59,800. Noted Aug. 11.

★Ia., Denison—Crawford Co. let contracts constructing 9 circular and 1 box culvert, to O. H. Knief, Denison, $2,839; 23 box and 14 circular culverts, 4 culvert extensions and 1 I-beam, to Wickham Bridge & Pipe Co., 20th St. and 1st Ave., Council Bluffs, $28,320.

★Ia., Spencer—Clay Co. let contracts constructing 18 box culverts, to Hendricksen Lumber Co., Royal, $14,866; 1 through truss, to F. Humphrey, Cherokee, $26,280. Noted Aug. 25.

★Tex., Comanche—Comanche Co. let contract constructing steel and concrete bridges, including 1 over Rush Creek and 1 over Leon River, on Highways 18 and 22, to Harris & Powell, Tyler, $76,911. Noted Aug. 11.

★Oregon—State Highway Comn., Salem, let contracts building rein.-con. bridge, 30 ft. long in Morrow Co., to Tobin & Pierce, Portland, $16,630, over Sloggins Creek, Forest Grove, Washington Co., to W. Mayer, Portland, $5,992, on Columbia River Highway, Stanfield, Umatilla Co., to Parker & Banfield, Columbia Bldg., Portland, $3,120; steel bridge over Pacific Highway in Wilmette, Lane Co., to Union Bridge Co., foot of Fenwick Kenton, Portland, $12,180; wood superstructure over Pacific Highway, Wilmette, Lane Co., to Lane Co. Constr. Co., Eugene, $9,733; steel truss span, 190 ft. long on Central Ave. Highway, over Bully Creek, Malheur Co., United Bridge Co., Boise, Idaho, $13,227; 4 culverts and 2 wood trestle spans in Baker Co., to Pijotte-Winters Inc., Portland, $13,395.

Dams

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Kan., Emporia — City let contract constructing rein.-con. and steel dam and locks in Neosho River, to C. C. Clark, North Topeka. About $30,000.

Railways

BIDS DESIRED

Massachusetts—Until Sept. 28, by W. H. Ensign, chn. Comrs. Hampden Co., (Springfield) building street railway tracks on new Connecticut River Bridge, from Springfield to West Springfield. About $30,000. Fay, Spofford & Thorndike, 15 Beacon St., Boston, engrs.

★Connecticut—Connecticut Co., 2nd National Bank Bldg., New Haven, will build 3,618 ft. double tracks in Hartford, on Wethersfield Ave., from Bond St. east. About $72,000. Work will be done by day labor.

★Minnesota—Duluth & Iron R.R., Wolvin Bldg., Duluth, let contract building 4½ mi. spur line from McComber mine, Vermillion Range to Armstrong Bay mine, to C. M. Magnuson, 1617 Jefferson St., Duluth. About $40,000.

Excavation and Dredging

PROPOSED WORK

La., Lake Charles—Channel—Calcasieu Parish plans election to vote on $2,250,000 bonds to dredge a ship channel, 30 ft. deep, 125 ft. wide at bottom. Total cost $2,750,000.

Ia., Oskaloosa—Ditch—Mahaska Co. rejected bids opened Sept. 6, building South Skunk River Ditch, D. D. 3, Sects. 2 and 3, involving 350,000 cu.yd. excav. R. W. Varley, co. aud. Noted Aug. 25.

BIDS DESIRED

La., Baton Rouge—Dredging—Until Oct. 12, by Bd. Comrs. Bayou Fountain D.D. of East Baton Rouge Parish, dredging Bayou Fountain and its tributaries. L. J. Huey, engr. in charge; advertised in this issue.

Wis., Mayville—Drain—Until Sept. 26, by L. S. Keeley, secy. Dodge Co. Farm Drainage Bd., excavating and laying ½ mi. 6-12 in. tile drain. Cost between $25,000 and $30,000. Private plans.

Excavation and Dredging (Continued)

Wash., Wenatchee—Tunnel—Wenatchee Recl. Dist. receiving bids driving 3,310 ft. rock tunnel west of Cashmere and relining 1,300 ft. abandoned tunnel at Monitor, providing continuous water supply for adjacent orchards. About $100,000. M. Chase, 26th and Main Sts., Olympia, supt. hydraulics.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Ia., Council Bluffs—Excavation—Pottawattamie Co. let contract excavating Sects. 1, 2, 3, 4, 5, 6, 7 and 8, Lower Silver, D. D. 19, Washington, Silver Creek and Keg Creek twps., involving 537,724 cu.yd. excav., to B. P. Wickham, 19 Scott St., $0.09 per cu.yd.

★Minn., Aitkin — Ditch — Aitkin Co. let contract building 10 mi. drainage ditch in Farm Island, Hazleton, Woodland and Wealthwood Twps., to Northern Minnesota Drainage Co., Litchfield, $53,290.

★Minn., Aitkin — Ditch — Aitkin Co. let contract building 29 mi. Co. Ditch 34, to Northern Minnesota Drainage Co., Litchfield, $53,290. Noted Aug. 18.

Streets and Roads

PROPOSED WORK

North Carolina—State Highway Comn., Raleigh, plans to clear, grub, grade, drain, topsoil and bridge 16.2 mi. State Project 550, Caldwell Co., about $150,000; 13 mi. road from Clarkton to Robeson Co. line, State Project 623, Bladen Co., $100,000. C. M. Upham, state highway engr..

N. C., Greensboro—Guilford Co. plans to grade, drain and topsoil 7 mi. road east from Monticello to Alamance Co. line. About $30,000. C. O. Lowe, co. engr.

La., Lake Charles — Calcasieu Parish election Nov. 8 to vote on $175,000 bonds to complete 9 mi. Vinton-Sabine Highway. When above road is completed, bridge will be built over Sabine River.

Tenn., Nashville—City plans to extend Capitol Blvd. to Bway. About $400,000. W. W. Southgate, City Hall, engr.

Tenn., Nashville—City plans to improve portion Charlotte Ave. and Bway. About $104,000. D. W. Southgate, City Hall, engr.

Mich., Mt. Clemens—State Highway Dept. Lansing, plans to grade, drain and surface 1.068 mi. State Trunk Line Rd. 27-14, Macomb Co., involving 9,341 cu.yd. excav., 12,437 sq.yd. concrete or bituminous concrete. F. F. Rodgers, state highway comr.

Ill., Dixon—City plans to pave 20 blocks, 26 ft. wide, vitr. brick on concrete base. About $50,000. B. Groves, clk. Private plans.

Ill., Elgin—City rejected bids opened Aug. 30, paving Larkins St., brick and asphalt on concrete base. About $65,000. Work will be readvertised. W. H. Brightman, City Hall, engr. Noted Aug. 25.

Ill., West Hammond—City having plans prepared paving various streets, vitr. brick on concrete base. About $27,000. H. A. Stockwick, clk. Consoer Eng. Co., 140 South Dearborn St., Chicago, engrs.

Wis., Sheboygan—City having plans prepared paving, curbing, guttering and building sidewalks on 0.9 mi. North 3rd St. from Vollrath Blvd. to Bell Ave. About $30,000. C. U. Boley, City Hall, engr.

Ia., Burlington—City plans to pave 25 blocks Lucas Ave., Mt. Pleasant and Chalfant Sts. About $75,000. H. A. Vollmer, city engr.

Minn., Little Falls—City plans to pave 6 blocks 1st St. S. E. from 2nd to 8th Aves. About $27,000. R. R. Reilly, Little Falls, engr.

Minn., St. Paul—Ramsey Co. plans to expend $1,234,948 for roads and bridges in 1922. R. R. Godfrey, co. engr.

Missouri—State Highway Dept., Jefferson City, plans to build 3.55 mi. road, State Aid Project 20.8, Franklin Co., involving 25,326 cu.yd. earth excav., 2,273 cu.yd. borrow, 21.8 cu.yd. Class B and 57.3 cu.yd. Class C concrete, etc. About $25,000.

Missouri—State Highway Dept., Jefferson City, plans to build 7.64 mi. road from Carroll to Brunswick, Carroll to Norborne and Carroll northward, State Aid Project 20.87, Carroll Co., involving 19,042 cu.yd. earth excav., 59,634 cu.yd. borrow, 213.4 cu.yd. Class B and 10.3 cu.yd. Class C concrete masonry, etc. About $48,257. A. Graham, state highway engr.

Missouri—State Highway Dept., Jefferson City, plans to build 6.09 mi. road from Lancaster eastward and southward, State Aid Project 20.48, Schuyler Co., involving 57,849 cu.yd. earth excav., 105.7 cu.yd. Class B and 37.8 cu.yd. Class C concrete, etc., cost $37,812; 3.63 mi. road from Princeton Southward, State Aid Project 20.79, Mercer Co., 33,674 cu.yd. earth excav., 65.5 cu.yd. Class B and 31.6 cu.yd. Class C concrete, etc., $29,048. A. Graham, state highway engr.

Mo., St. Joseph—City having plans prepared paving 10th St., involving 5,880 ft. 7 in. concrete paving, 180 ft. driveway, 15,650 ft. sidewalks, etc. About $30,000. W. K. Seitz, City Hall, engr.

Tex., Brownsville—City election Sept. 27, to vote on $100,000 bond issue for paving streets. J. O. Spencer, city engr.

Tex., El Paso—El Paso Co. had plans prepared paving 6 mi. road from San Elizario to Socorro. L. A. White, co. engr.

Tex., Lufkin—Angelina Co. voted $1,425,000 bonds to gravel surface and drain Highways 35 and 37 and lateral roads, 16 ft. wide. L. Acker, Nacogdoches, co. engr.

Okla., Sayre—City having preliminary plans prepared paving Dist. 1, concrete. About $60,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, consult. engrs.

Colorado—State Highway Dept., Denver, had plans prepared grading and draining 4.1 mi. road between Buena Vista and Leadville, Federal Aid Project 157, Chaffee Co. About $73,000. L. D. Blauvet, State Museum Bldg., Denver, engr.

Cal., San Diego—Bd. Supervs. San Diego Co. plan to grade and pave with 3 in. asphaltic concrete 2½ mi., Terrace, Kensington, Marlborough and Mission Drives, Edgeware Rd., Park Pl., Adams and Jefferson Aves. About $65,000. E. P. Watson, 4598 Edgeware Rd., engr.

Que., Longueil—City voted $375,000 bonds to pave various streets.

BIDS DESIRED

Massachusetts—Until Oct. 4, by Dept. Pub. Wks., Div. of Highways, Room 413 State House, Boston, building 1,750 ft. bituminous macadam highway in Bernardston, and 8,450 ft. gravel highway in Gill. J. N. Cole, comr.

R. I., Providence—Until Oct. 5, at office of Water Supply Bd., paving 4¾ mi. bituminous macadam road from North Scituate to Rockland in town of Scituate. B. T. Potter, chn.; advertised in this issue.

Connecticut—Until Sept. 26 by C. J. Bennett, state highway comr., 240 Farmington Ave., Hartford, paving highways in New Milford, Harwinton and Easton; advertised in this issue.

N. Y., Brooklyn—Until Sept. 28, by E. Riegelmann, boro pres., Boro Hall, regulating, grading, curbing, laying sidewalks, paving and repaving Howard Ave. from Eastern Parkway to Pitkin Ave., including triangular space at junction of Eastern Parkway, Howard Ave. and Lincoln Pl., permanent sheet asphalt on 6 in. concrete foundation.

N. Y., Long Island City—Until Sept. 27, by M. E. Connolly, pres. Queens Boro., Queens Subway Bldg., regulating and paving Roosevelt Ave. from 5th St. to Junction Ave., 2nd Ward, preliminary concrete pavement; Roosevelt Ave. from Junction Ave. to angle point east of Alburtis Ave., sheet asphalt on concrete foundation.

Maryland—Until Sept. 27, by State Rds. Comn., 601 Garrett Bldg., Baltimore, paving sections of highways in Frederick Co., Contr. No. F-46 and Anne Arundel Co., Contr. No. AA-22. J. N. Mackall, chn.; advertised in this issue.

W. Va., Moundsville—Until Sept. 30, by J. E. Chase, clk. Marshall Co., constructing 1½ mi. Sallie Arnold Ridge Rd. and 1 mi. Roberts Ridge Rd.

W. Va., Webster Springs—Until Oct. 6, by B. S. Wooddell, clk. Webster Co., grading and draining 8.25 mi. Webster Springs-Diana Rd., and constructing bridge over Grassy Creek, near Diana.

La., Harrisonburg—Until Oct. 3, by Police Jury of Catahoula Parish, building 11 mi. Harrisonburg-Jonesville Highway, 16 mi. Harrisonburg-Jena Highway, 13 mi. Harrisburg-Winnsboro Highway, 18 mi. Harrisonburg-Columbia Highway, 19 mi. Winnsboro-Clayton Highway.

Kentucky—Until Sept. 28, by State Highway Dept., Old Capitol Bldg., Frankfort, shaping, draining and surfacing to width of 18 ft. with rock asphalt, bituminous macadam, penetration type, or rein.-con., or bituminous concrete topeka mix. 7 mi. Richmond-Lexington Rd., Federal Aid Project 49, Madison Co., involving 5,699 ton rock asphalt, 166,320 gal. bituminous material, 73,920 sq.yd. rein.-con., or 73,920 sq.yd. bituminous concrete, etc.; shaping and draining 8.9 mi. Louisville-Paducah Rd., Federal Aid Project 62, Union Co., 40,378 cu.yd. earth, 551 cu.yd. ditch and 21,649 cu.yd. borrow excav., 591 cu.yd. Class A and 194 cu.yd. Class B concrete, 35,710 lb. reinforcing steel, etc.; shaping and draining 12.7 mi. Louisville-Paducah Rd., Federal Aid Project 37, Breckinridge Co., 14 acres clearing and grubbing, 37,468 cu.yd. earth, 48,887 cu.yd. solid rock and 7,850 cu.yd. borrow excav., 1,481 cu.yd. Class A, 224 cu.yd. Class B and 6 cu.yd. Class D concrete, 98,097 lb. reinforcing steel, etc.; shaping, draining and surfacing to width of 16 ft. with brick or rock asphalt, or bituminous macadam, penetration type, 1.4 mi. street in town of Stearns, McCreary Co., 9,896 cu.yd. earth and 71 cu.yd. solid rock excav., 108 cu.yd. Class A concrete, 3,022 sq.yd. Hillside brick, 992 ton crushed slag or 1,134 ton crushed limestone base for Hillside brick, 744 ton rock asphalt, 4,317 lb. reinforcing steel, 4,683 ton crushed limestone or slag for base, 21,756 gal. bituminous material, 9,669 sq.yd. brick paving, etc.; shaping, and draining 7 mi. Louisville-Paducah Rd., Federal Aid Project 46, Hancock Co., 15 acres clearing and grubbing, 32,567 cu.yd. earth, 48,857 cu.yd. solid rock and 10,487 cu.yd. borrow excav., 705 cu.yd. Class A concrete, 50 cu.yd. etc.; shaping, draining and surfacing to 1:3:6 concrete, 36,373 lb. reinforcing steel, width of 10 ft. with waterbound macadam 11 mi. Brooksville-Newport Rd. from Powersville to Lenoxburg, Bracken Co., 365 stations grader work, 4,000 cu.yd. earth excav., 180 cu.yd. Class A concrete, 43,650 sq.yd. scarifying and reshaping, 12,000 ton crushed stone, etc.; shaping, draining and surfacing to width of 14 ft. with waterbound macadam 4.5 mi. Brooksville-Maysville Rd., Bracken Co., 315 stations grader work, 500 cu.yd. earth excav., 128 cu.yd. Class A concrete, 25,600 sq.yd. scarifying and reshaping 9,600 ton crushed stone, etc.; shaping and draining 9.8 mi. Pikeville-Williamson Rd., Federal Aid Project 52, Pike Co., involving 82,960 cu.yd. earth 151,394 cu.yd. rock, 15,999 cu.yd. refill and 6,020 cu.yd. borrow excav., 103 cu.yd. encasing concrete, 633 cu.yd. Class A and 51 cu.yd. Class B concrete, 553 cu.yd. cement rubble masonry, 32,961 lb. reinforcing steel, etc.; shaping and draining 18.7 mi. Mayo Trail, Federal Aid Project 56, Lawrence Co., involving 149,456 cu.yd. earth, 52,944 cu.yd. solid rock and 11,444 cu.yd. borrow excav., 632 cu.yd. Class A concrete, 74,538 lb. reinforcing steel, 28 acres clearing and grubbing, etc. J. S. Boggs, state highway engr.

O., Bedford—Until Sept. 24, by Village, grading and laying sidewalks on Greencroft Rd., Creswell, Dewhurst, Tudor and Thames Aves. About $32,000. B. T. Wright, Bedford, engr.

O., Dayton—Until Sept. 26, by Dept. Pub. Serv. paving 800 ft. Randolph St. from Germantown to Eaton Sts., also 600 ft. Dennison Ave., involving 4,700 sq.yd. rein.-con. About $15,000 and $10,000 respectively. G. Baker, city engr.

O., Osborn—Until Sept. 26, by Osborn Removal Co., grading and graveling all streets in New Osborn involving 24,000 lin.-ft. concrete curb and gutter and 50,000 cu. yd. earth excav. About $60,000. Cellarius & Dressler, 1001 Commercial Bldg., Dayton, engrs.

Illinois—Until Oct. 4, by Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving, 2.99 mi. Route 2, Sect. 1, Jackson Co., 6.69 mi. Route 2, Sect. 3, Jackson Co.,

Streets and Roads (Continued)

6.94 mi. Route 2, Sect. 4, Jackson-Perry Co., 16.62 mi. Route 2, Combination 1, Jackson-Perry Co., 13.63 mi. Route 2, Combination 2, Jackson-Perry Co., 5.98 mi. Route 2, Sect. 5, Perry Co., 4.69 mi. Route 2, Sect. 6, Perry Co., 10.67 mi. Route 2, Combination 3, Perry Co., 5.99 mi. Route 2, Sect. 7, Perry-Washington Co., 11.13 mi. Route 2, Combination 4, Washington Co., 21.8 mi. Route 2, Combination 5, Washington Co., 35.43 mi. Route 2, Combination 6, Jackson-Washington Co., 2.65 mi. Route 4, Sect. 9, Livingston Co., 7.86 mi. Route 4, Sect. 14, McLean Co., 6.33 mi. Route 7, Sect. 5, Henry Co., 4.36 mi. Route 7, Sect. 7, Henry-Bureau Co., 2.45 mi. Route 7, Sect. 8, Bureau Co., 6.8 mi. Route 7, Combination 12, Henry-Bureau Co., 13.14 mi. Route 7, Combination 13, Henry-Bureau Co., 6.27 mi. Route 9, Sect. 11, Woodford-McLean Co., 6.08 mi. Route 10, Sect. 4, Champaign Co., 2.69 mi. Route 10, Sect. 7-S, Piatt Co., 5.87 mi. Route 10, Sect. 8, Piatt Co., 8.56 mi. Route 10, Combination 14, Piatt Co., 4.17 mi. Route 10, Sect. 9, Piatt Co., 12.73 mi. Route 10, Combination 15, Piatt Co., 4.21 mi. Route 10, Sect. 11, Macon Co., 5.68 mi. Route 10, Sect. 17, Sangamon Co., 11.38 mi. Route 10, Combination 16, Sangamon Co., 5.68 mi. Route 10, Sect. 18, Sangamon Co., 2.12 mi. Route 10, Sect. 19, Sangamon Co., 7.8 mi. Route 10, Combination 17, Sangamon Co., 19.18 mi. Route 10, Combination 18, Sangamon Co., 7.3 mi. Route 10, Sect. 21, Sangamon Co., 7.18 mi. Route 10, Sect. 23, Sangamon Co., 14.48 mi. Route 10, Combination 19, Sangamon Co., 6.2 mi. Route 12, Sect. 4, Richland Co., 6.55 mi. Route 15, Sect. 5, Washington Co., 5.19 mi. Route 15, Sect. 6, Washington Co., 4.13 mi. Route 15, Sect. 7, 15.87 mi. Route 15, Combination 8, Washington Co., 2.16 mi. Route 15, Sect. 8, Washington Co., 5.95 mi. Route 15, Sect. 9, Washington Co., 4.8 mi. Route 15, Sect. 10, Washington Co., 10.91 mi. Route 15, Combination 9, Washington Co., 26.78 mi. Route 15, Combination 10, Washington Co., 65.2 mi. Route 15, Combination 11, Washington Co., 5.83 mi. Route 18, Sect. 9 Du Page Co., 6.45 mi. Route 18, Sect. 10, Du Page Co., 12.28 mi. Route 18, Combination 21, Du Page Co., 4.73 mi. Route 23, Sect. 2, La Salle Co., 1.08 mi. Project 9, Sect. 27, Madison Co.,all foregoing 18 ft. wide; 5.14 mi. Route 2, Sect. 8, Washington Co., 38.42 mi. Route 2, Combination 7, Jackson-Washington Co., 5.7 mi. Route 10, Sect. 16, Sangamon-Macon Co., 5.81 mi. Route 13, Sect. 1, Williamson Co., 4.99 mi. Route 13, Sect. 5, Jackson-Williamson Co., 10.8 mi. Route 13, Combination 20, Jackson-Williamson Co., 18-20 ft. wide; 0.1 mi. Route 1, Sect. 27, Kankakee Co., 20 ft. wide; grading 4.83 mi. Route 15, Sect. 22-A, Wayne Co., 3.21 mi. Route 37, Sect. 2-A, Jefferson Co., 3.21 mi. Route 37, Combination 29 (including bridge) Jefferson Co., 4.6 mi. Route 1, Sect. 9-A Wabash Co., 0.84 mi. Route 1, Sect. 17-A, Lawrence Co., 5.55 mi. Route 1, Sect. 18-A, Crawford Co., 4.05 mi. Route 1, Sect. 4-A, White Co., 8.02 mi. Route 1, Sect. 5-A, White Co., 12.07 mi. Route 1, Combination 22, White Co., 32 ft. wide; grading 5.66 mi. Route 1, Sect. 6-A, White Edwards Co., 4.5 mi. Route 1, Sect. 7-A, Edwards Co., 10.16 mi. Route 1, Combination 23, White-Edwards Co., 5.66 mi. Route 1, Sect. 8-A, Edwards-Wabash Co., 2.87 mi. Route 1, Sect. 19-A, Crawford Co., 9.26 mi. Route 1, Combination 26, Crawford Co., 3.64 mi. Route 1, Sect. 10-A, Wabash Co., 13.9 mi. Route 1, Combination 24, Edwards-Washington Co., 36.13 mi. Route 1, Combination 25, White-Wabash Co., 21-32 ft. wide; grading 4.11 mi. Route 8, Sect. 5-A, Warren-Henderson Co., 5.48 mi. Route 8, Sect. 6-A, Henderson Co., 7.38 mi. Route 8, Sect. 7-A, Henderson Co., 16.97 mi. Route 8, Combination 27, Warren-Henderson Co., 16.97 mi. Route 8, Combination 28 (including bridges) Warren-Henderson Co., 1.87 mi. Route 8, Sect. 11-A, Peoria Co., 30 ft. wide.

Alternate bids on Portland cement concrete, 4 in. monolithic brick, bituminous concrete with and without binder course. C. Older, ch. highway engr.

Ia., Northwood—Until Sept. 28, by Auditor Worth Co., gravel surfacing 8.427 mi. primary road, Federal Aid Project 134, involving 12,641 cu.yd. gravel.

Minn., Duluth—Until Sept. 29, by St. Louis Co., grubbing, ditching and grading 4.7 mi. State Rd., 2 north of here and 5 mi. State Rd. 35, between Chisholm and Hibbing, 30 ft. wide, involving 25,000 cu.yd. earth excav. About $160,000. R. W. Acton, Court House, engr.

Minn., Olivia—Renville Co. receiving bids grading and graveling 15 mi. Job 2101, State Rd. 5, between Bird Island and Franklin, involving about 75,772 cu.yd. excav., 239,166 cu.yd. overhaul, 62 ton culvert, 1 mi. haul and 34,884 cu.yd. gravel, 1 mi. haul. About $40,000. County to furnish gravel and culvert material.

Kan., Columbus.— Until Sept. 27, by Cherokee Co., grading, gravel surfacing and draining various roads. About $25,000. Engineer not announced.

Mo., Jefferson City—Until Sept. 27, by city, surfacing High St., bituminous macadam on concrete base. About $38,000. F. E. Ross, Jefferson City, engr.

Mo., Mexico—Until Sept. 27, by city, improving Liberty St., bituminous macadam on concrete base. About $25,000. W. Dearing, clk. Engineers name withheld. Noted July 28.

Tex., Canton—Until Sept. 26, by C. L. Hubbard, judge Van Zandt Co., grading, gravel surfacing and draining 29.6 mi. Dixie Highway, State Highway 15, involving 32,319 cu.yd. borrow and 9,124 cu. yd. roadway excav., 1,090.2 cu.yd. Class A and 223.07 cu.yd. Class B concrete, 14,504 cu.yd. gravel surfacing and 101,528 lb. reinforcing steel. About $150,000. H. E. Dean, Canton, engr.

Tex., Pecos—Until Oct. 6, by J. F. Ross, judge Reeves Co., clearing, grubbing, grading and draining 21.56 mi. State Highway 1, involving 60,225 cu.yd. borrow and 29,284 cu.yd. roadway excav., 85.9 cu.yd. Class A, 545.9 cu.yd. Class B and 118 cu.yd. Class C concrete, 18,543 lb. reinforcing steel and 25,160 cu.yd. gravel (to be furnished by county), about $154,000; 9.69 mi. State Highway 1, 17,231 cu.yd. roadway and 30,373 cu.yd. borrow excav., 359.5 cu.yd. 1:2:4, 83.5 cu.yd. 1:2½:5 and 324.9 cu.yd. 1:2:3½ concrete, 31,309 lb. reinforcing steel, 2,850.5 cu.yd. gravel (to be furnished by county), $64,407. D. E. H. Manigault, El Paso, div. engr.

Colorado—Until Sept. 27, by State Highway Comn., Denver, gravel surfacing 3.158 mi. road between Craig and Hayden, Federal Aid Project 188, Moffat Co., involving 1,673 cu.yd. rock and 23,870 cu.yd. common excav. Cost $49,797. L. D. Blauvelt, State Museum Bldg., Denver, engr.

Utah, Salt Lake City—City Council receiving bids improving all streets north of South Temple and west of North Sts., involving 62,000 ft. paving, 92,000 cu.yd. excav. and 6,800 cu.yd. excav. and back fill. About $275,000. S. Q. Cannon, city engr.

Wash., Kelso—City receiving bids grading, paving and curbing ½ mi. Pacific Highway, 2nd, Columbia and Front Sts. About $26,000. J. C. Jackson, Kelso, engr.

California—Until Oct. 3, by State Highway Dept., Forum Bldg., Sacramento, paving with asphaltic concrete, 10 mi. highway in Kern Co., 1.9 mi. highway between Toulumne River Bridge and 1.2 mi. north of Ceres, Stanislaus Co.; paving with cement concrete or bituminous macadam 15.7 mi. highway between Summit and Victorville, San Bernardino Co.; grading 10 mi. highway between 6 mi. north of San Simeon and northern boundary San Luis Obispo Co. A. B. Fletcher, state highway engr.

Cal., Los Angeles—Until Sept. 26, by Bd. Supervs., Los Angeles Co., paving with 3 in. concrete, curbing, guttering and building culverts on 1.38 mi. Rd. Dist. 198, involving 18,341 sq.yd. concrete, 14,801 lin.ft. cement curbing, 41,343 sq.ft. concrete gutter, 16,976 cu.yd. earth excav. and 12,669 lb. reinforcing steel. About $75,000. Private plans.

Que., Montreal—Until Sept. 29, by Chairman Administrative Com., building sidewalks on St. Lawrence Blvd., Mozart, Amherst, Sacre Coeur, La Salle, St. Charles, Walkley, Colbrook, Grosvenor, Fortune and Fleurimont Aves. E. Blanchard, City Hall, engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Massachusetts—State Highway Comn., Boston, let contract building 6,000 ft. gravel highway, 18 ft. wide, on Otis Rd., Monterey, to Hoyt Constr. Co., 85 Dartmouth St., Holyoke. About $30,000.

★Massachusetts—State Highway Comn., Boston, let contract paving 11,000 ft. state highway in Middlefield and Peru, 18 ft. wide, to C. Bianchi & Co., Framingham, $38,048.

★Connecticut—State Highway Dept., 240 Farmington Ave., Hartford, let contract paving 6,000 ft. trap rock highway, 18 ft. wide, in East Haddam, to F. Arrigoni & Bro., 605 Main St., Middletown, $26,000; 4,500 ft. 8 in gravel highway, 18 ft. wide, in Barkhamsted, to N. Benvenuti & Son, 74 Goshen St., New London, $20,000; 4,750 ft. 3 in. bituminous macadam highway, 18 ft. wide, in Stafford, to J. DeMichael & Bro., 58 High St., Torrington, $25,000; 1,480 ft. 8 in. gravel highway, 18 ft. wide, in Southbury, to Osborne & Barnes, Odd Fellows Bldg., Danbury, $7,000.

★N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, let contracts to Sicilian Asphalt Paving Co., 41 Park Row, New York City, regulating, curbing and paving Bay 22d St., cost $6,166, Chester St., $8,689, regulating and paving East New York Ave., $29,772, 75th St., $15,473, regulating and repaving 6th St., $4,120; to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., regulating, curbing and paving Sheridan Ave., $11,070, regulating and paving East 13th St., $10,317; to Borough Asphalt Co., 1301 Metropolitan Ave., regulating and paving Sheridan Ave., $4,889. Noted Sept. 8.

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Sept. 14, regulating and curbing, etc., (1) Malta St. from Lorraine to Stanley Aves., regulating and paving (2) Moultrie St. and Meserole to Greenpoint Aves., granite block, (3) Ave. Y from East 16th to East 18th Sts., preliminary 2nd hand granite on sand foundation, (4) 16th Ave. from 54th to 63rd Sts., asphalt on 6 in. concrete foundation, regulating and repaving (5) Metropolitan Ave. from North 7th St. to Bushwick Ave., granite block on 6 in. concrete foundation, (6) Hooper St. from Wythe Ave. to point 125 ft. east, asphalt on 6 in. concrete foundation, resurfacing (7) Chauncey St. from Bway. to Bushwick Ave., etc., asphalt, from J. J. McKenna, (1) $2,512; F. Persicano, 513 Medwood St., (1) $2,610; Grimm Constr. Co., (1) $2,668; Brooklyn Manhattan Contg. Corp., 26 Court St., (2) $13,639; T. F. Maher, (2) $16,376, (3) $9,520; F. J. Gallagher, 490 Park Pl., (2) $20,810, (3) $8,368; Welsh Bros. Contg. Co., 14 Queens St., Astoria, (2) $14,299, (5) $62,349; C. Gallagher, 745 Dean St., (2) $14,622, (3) $10,390; Cranford Co., 152 9th St., (4) $33,349, (6) $2,635, (7) $62,246; Borough Asphalt Co., 1301 Metropolitan Ave., (4) $34,410, (6) $2,151; Uvalde Asphalt Co., 1 Bway., New York City, (4) $34,562; M. I. Sachs, 246 South 9th St., (5) $62,304; McFarlan Contg. Co., (5) $62,874; Sicilian Asphalt Paving Co., 41 Park Row, New York City, (6) $2,852, (7) $75,332. Noted Sept. 8.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, let contract regulating, grading, etc., Rockaway Blvd. from New York Ave. to Nassau Co. line, to A. Paino, 2016 East 14th St., New York City. About $273,000. Noted. Sept. 15.

★N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., let contract regulating and repaving Crescent St. also regulating and grading Concordia St., to C. A. Myers Contg. Co., Stagg St. and Morgan Ave., Brooklyn, $2,700 and $1,930 respectively; regulating and repaving Metropolitan Ave., to W. P. McDonald Constr. Co., 17 West 42nd St., New York City, $92,700; 5th St. and 1st Ave., to Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $35,315 and $13,149 respectively; Luona Ave., to Sicilian Asphalt Paving Co., 41 Park Ave., New York City, $4,919; regulating and grading Arcadia Ave. and 5th St., to F. J. Clancy, Corona, $1,770 and $18,850 respectively; Ely Ave., to Welsh Bros. Contg. Co., 32 Queens St., Astoria, $9,479; Hallet St. and laying sidewalks on 46th St., to R. A. Hess, 14 Queens St., Astoria, $7,750 and $2,610 respectively. Noted Sept. 15.

N. Y., New York—H. Bruckner, pres. Bronx Boro, opened bids Sept. 16, repaving East Tremont Ave., from Casper-Helbock Co., Harlem River and 150th St., $40,875, Burnside Contg. Co., 270 Burnside Ave., $41,493, Regan Towers Co., $43,584; paving Fox St., from Asphalt Constr. Co., 2197 Madison Ave., $13,674, Interborough Asphalt Co., $13,913, Brusstar Constr. Co., Inc., Harlem River and 150th St., $14,058; regulating and grading, etc. Matthews Ave., from Testa Eng. & Contg. Co., 2415 Creston Ave., $13,027, Fordham Contg. Co., $16,140, J. W. Williams, Co., $17,684; building

Streets and Roads (Continued)

sewer in Aqueduct Ave., from Slattery Eng. & Contg. Co., 7 East 42nd St., $7,441, Norton Eng. & Contg. Co., $8,016, F. De Micco, Clarence Ave. and 134th St., $8,081. Noted Sept. 8.

★**N. J., Jersey City**—City let contract paving 8 blocks of Clerk and Union Sts., Monticello and Communipaw Aves., sheet asphalt on present foundation, to Williet Rd. Constr. Co., 51 Chambers St., New York City, 90 per cent of engineers estimate ($27,670). Noted Sept. 15.

N. J., Jersey City—F. Dolan, city clk., opened bids Sept. 13, paving 21 blocks Brunswick St. between Grand and 10th Sts., sheet asphalt on present foundation, from Willite Rd. Constr. Co., 51 Chambers St., New York City, 87 per cent engineers estimate ($64,540); W. T. S. Critchfield, 14th St., Hoboken, 87½ per cent; Clinton Asphalt Paving Co., Charles St., West Hoboken, 95 per cent. Noted Sept. 8.

★**N. J., Sparta**—Sparta Twp. let contract grading 2.68 mi. Sparta Woodport Rd., involving 38,200 cu.yd. earth excav., to Richards & Gaston, 110 South Bridge St., Somerville, $58,616. Noted Sept. 1.

D. C., Wash.—Dist. Comrs., 509 Dist. Bldg., received bids grading various streets, from W. F. Brenizer, 101 New York Ave., (1) $0.38, (2) $0.39, (3) $0.48, (4) $0.48, (5) $0.48, (6) $0.48, (7) $0.60; G. B. Mullin & Co., 1296 Upshur St., (1) $0.44, (2) $0.29, (3) $0.47, (4) $0.47, (5) $0.47, (6) $0.47; Corson & Gruman, (3, 4 and 5) $0.58; W. F. Cush, 3rd and R Sts., (1) $0.495, (2) $0.46. Noted Aug. 11.

★**North Carolina**—State Highway Dept., at div. office, Elkin, let contract clearing, grubbing, grading, draining and surfacing 7.16 mi. State Project 543, Stokes Co., to W. E. Graham, Mt. Ulla, $30,640; 14.86 mi. State Project 542, Stokes Co., to J. F. Mulligan Constr. Co., North Wilkesboro, $65,190; 3.14 mi., State Project 527, Ashe Co., to Pittman Constr. Co., Rhodes Bldg., Atlanta, Ga., $129,716. Noted Sept. 8.

North Carolina—State Highway Dept., at div. office, Charlotte, opened bids Sept. 10, clearing, grubbing, grading, draining and paving 7.88 mi. State Project 587 A, Iredell Co., from A. F. McConville, Ogdensburg, N. Y., $232,915; Thompson-Caldwell Constr. Co., Statesville, $244,509; J. A. Kreis & Co., Holston Bank Bldg., Knoxville, Tenn., $249,550. Noted Sept. 1.

★**O., Berea**—Village let contract paving Lincoln, Beach, 3rd and 5th Aves., involving 2,133 cu.yd. earth excav., 865 cu.yd. concrete, 6,161 sq.yd. brick paving, etc., to W. G. Denner, Berea, $60,121.

★**O., Cleveland**—Bd. Educ., East 6th St. and Rockwell Ave., let contract for 8,000 cu.yd. excav., stone steps and walks also building concrete retaining wall, to Uhl-Jasper Co., 1900 Euclid Ave., $35,180; playground surface and landscaping, to R. W. Walton, Hippodrome Bldg., $13,000. Noted Sept. 15.

★**O., Cleveland**—Cuyahoga Co. let contract improving various streets to Lake Erie Paving Co., Society for Savings Bldg., $100,434. Noted Sept. 15.

★**O., East Cleveland** (Cleveland P. O.)—City let contract improving East 133d St. from Shaw to 3d Aves., involving 76,000 sq.ft. monolithic brick, to Gould & Maybach, 823 East 150th St., Cleveland, $42,340. Noted Nov. 4.

★**Mich., Cheboygan** — State Highway Dept. at office Bd. Rd. Comrs. Cheboygan Co. and Emmet Co. (Petoskey), let contract grading, draining and surfacing 15.47 mi. Federal Aid Project 60, to Scott, Cochran & Scott, Saginaw. Work involves 71,217 cu.yd. earth excav., $0.60, 675 cu.yd. rock excav., $2.50, 254.7 cu.yd. 1:2:4 concrete, $18.250. 4 cu.yd. 1:3:6 concrete, $16, 6,961 sq.yd. water bound macadam, $1.30, 137,991 sq.yd. gravel, $0.47.

Mich., Detroit—City received bids paving alleys 1340 (1) to 1367 (28): T. E. Currie, 20 McGraw Bldg., (1) $8,618, (5) $4,394, (7) $3,671, (10) $2,869, (19) $3,956, (21) $3,219.—F. H. Davis Co., 1838 Penobscot Bldg., (1) $8,702, (10) $2,939, (12) $2,695, (15) $1,977, (17) $1,628, (18) $1,226, (19) $4,114, (24) $3,083, (25) $3,033, (27) $2,017.—Reading Corp., 413 West Fort St., (1) $8,814, (5) $4,450, (11) $2,590, (17) $1,704, (20) $3,639, (22) $3,078, (23) $3,380, (26) $2,245.—F. Porath, Jr., 305 Free Press Bldg., (2) $4,890, (8) $3,676, (9) $3,187, (13) $2,827, (14) $2,721.—Delisle & Cooper, 402 Ford Bldg., (2) $4,829, (3) $4,935, (4) $5,153, (8) $3,662, (9) $3,147, (13) $2,844, (14) $2,704, (26) $2,268.—Gustin & Co., (2) $4,884, (3) $4,991, (4) $5,173, (9) $3,180.—R. J. Powelson & Co., 6445 Iroquois Ave., (3) $4,956, (4) $5,135, (15) $2,043, (18) $1,247.—Otis Cement Constr. Co., 806 Hammond Bldg., (5) $4,517, (6) $4,562, (7) $3,698, (11) $2,687, (23) $3,420, (24) $3,277, (25) $3,172, (28) $1,727.—A. F. Lester, 309 Sun Bldg., (6) $4,593, (7) $3,718, (8) $3,723, (10) $2,925, (11) $2,705, (12) $2,631 (13) $2,921, (14) $2,806, (15) $2,014, (16) $1,726, (17) $1,684, (18) $1,164, (19) $4,089, (20) $3,663, (21) $3,293, (24) $3,049, (25) $2,931, (27) $1,978, (28) $1,726.—J. Porath, 34 McGraw Bldg., (6) $4,407, (22)$3,020, (23) $3,322, (26) $2,144, (28) $1,613.

Mich., Detroit—City received bids paving alleys 1368 (1) to 1377, (10), from T. E. Currie, 20 McGraw Bldg., (1) $4,954, (2) $4,580, (6) $4,777; Otis Cement Constr. Co., 806 Hammond Bldg., (1) $4,904, (2) $4,457, (3) $3,480, (4) $2,430, (6) $4,455, (7) $4,100, (8) $4,040, (9) $3,293, (10) $2,868; Gustin & Co., Detroit, (1) $4,910, (2) $4,462, A. F Lester, 309 Sun Bldg., (3) $3,805, (6) $4,580, (10) $2,797; F. H. Davis & Co., 1838 Penobscot Bldg., (3) $3,594; F. Porath, Jr., 305 Free Press Bldg., (4) $2,377, (9) $3,189; Delisle & Cooper, 402 Ford Bldg., (4) $2,438, (5) $2,298; J. Porath, 34 McGraw Bldg., (5) $2,192, (7) $4,025, (8) $3,968; G. Nunn, 6409-3rd St., (5) $2,230; Reading Corp., 413 West Fort St., (7) $4,101, (8) $4,043, (9) $3,290. Detroit Drainage Constr. Co., 827 Ford Bldg., (10) $2,839.

★**Mich., Hillsdale**—State Highway Dept. at office Bd. Rd. comrs. Hillsdale Co. (Hillsdale), and Calhoun Co. (Marshall), let contract grading, draining and surfacing 11.423 mi. Federal Aid Project 37, to Townsend & Shuttleworth, Lansing. Work involves surfacing 1.93 mi. with concrete, 8,546 cu.yd. excav., $0.75, 24.6 cu.yd. 1:2:4 concrete, $15, 20,353 sq.yd. concrete, $2.10; 9.493 mi. to be surfaced with gravel, 27,067 cu.yd. excav., $0.50, 122.8 cu.yd. 1:2:4 and 65.4 cu.yd. 1:3:6 concrete, $15 89,097 sq.yd. gravel, $0.45. Noted Aug. 25.

★**Ill., Carlyle** — Clinton Co. let contract paving Carlyle-Keysport Rd., involving 6,964 sq.yd. concrete, to W. McDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $28,472. Noted Sept. 8.

★**Ill., Elgin**—City let contract paving, curbing and guttering State and North Liberty Sts., asphalt on concrete base, to Illinois Hydraulic Stone & Constr., Elgin. About $25,000. Noted Sept. 1.

★**Ill., Galesburg**—City let contracts paving 3,400 sq.yd. Prairie St., and 14,300 sq.-yd. Lincoln St., vitr. brick on 5 in. concrete base, asphalt filler, to Graham-King Constr. Co., 550 South Cedar St., $17,537 and $75,608 respectively.

★**Ill., East Hammond**—City let contract paving various streets, vitr. brick and asphalt on concrete base, to Public Constr. Co., Rimback Bldg. About $53,000.

★**Wisconsin**—State Highway Dept., Div. Office 9, Teller Bldg., Lancaster, let contracts grading and surfacing 8.18 mi. Lake to River Rd., Federal Aid Project 140, and 8.17 mi. Lake to River Rd., Federal Aid Project 34, Iowa Co., to Carroll Constr. Co., 124 2nd St., Milwaukee, $29,982 and $23,670 respectively. Noted Sept. 8.

★**Wis., Mayville**—City let contract paving and grading 0.9 mi. Fremont and Main Sts., involving 11,050 sq.yd. 1 course rein.-con., to F. Doherty Co., 753 47th St., Milwaukee, $2.59 per sq.yd.

★**Ia., Dennison**—Crawford Co. let contract grading 15.42 mi. Primary Rd. Project 8, north, northwest and southeast of here, involving 309,958 cu.yd. earth excav., to Peterson, Shirley & Gunther, 1102 Woodmen of the World Bldg., Omaha, Neb., $0.1975 per cu.yd. Noted July 7.

★**Ia., Des Moines**—City let contracts paving Oak Park Ave., asphalt and concrete, to Des Moines Asphalt Paving Co., 7th and New York Sts. $25,474; Mulberry St., to G. F. Lambert, 715 West 21st St., $25,000. Noted Aug. 5.

★**Ia., Grundy Center**—Grundy Co. let contract gravel surfacing 8.21 mi. primary roads Project 163, involving 12.315 cu.yd. gravel, to Miller Constr. Co., Sioux City, at $0.42 per cu.yd., load, haul one mile and spread, $0.47 per cu.yd. stripping gravel pits. Noted Aug. 25.

★**Ia., Le Mars**—Plymouth Co. let contracts grading and draining 5.146 mi. Wren-Junction-Merrill Rd., involving 101,900 cu.yd. excav., to I. Cox, Sioux Falls, $0.16 per cu.yd.; 20 mi. Le Mars-Akron Rd., involving 259,178 cu.yd. excav., to A. L. Cook, Ottawa, Kan., $0.1875 per cu.yd. Noted Sept. 1.

★**Ia., Spencer**—Clay Co. let contract grading 6.42 mi., Primary Rd. Project 56, east and west of Peterson, involving 126,645 cu.yd. earth excav., to Wickes Eng. & Constr. Co., 418 Polk Bldg., Des Moines, 101,999 cu.yd. earth excav. at $0.299 per cu.yd., 24,646 cu.yd. at $0.59. Noted Aug. 25.

★**Minn., Hastings**—Dakota Co. let contract grading and paving 1.5 mi. Lyndale Ave. Rd. between Dodd Rd. and State Rd. 6, bitulithic, to General Contg. Co., 1228 Plymouth Bldg., Minneapolis, $47,706. Noted Sept. 8.

★**Minn., Slayton**—City let contract paving about 15,000 sq.yd. various streets, to Hanlon & Okes, 338 Lumber Exch. Bldg., Minneapolis. About $53,000. Noted Aug. 25.

★**Neb., Nelson**—City let contract grading and concrete paving various streets, to Cook-O'Brien Constr. Co., Ry. Exch. Bldg., Kansas City, Mo. About $63,000. Noted Sept. 1.

★**Wyo., Casper**—Natrona Co. let contract grading and gravel surfacing 7 mi. Federal Aid Project 89, from county line west to here, involving 30,000 cu.yd. excav., 12,000 cu.yd. gravel, etc., to Sherrock & Purcell, Casper, $38,823. Noted Aug. 4.

★**Missouri**—State Highway Dept., Jefferson City, let contract building 3.29 mi. road from Taylor northward and southward, Red Ball Route, State Aid Project 20.39, Marion Co., to J. T. McMahon, 4238 North 19th St., St. Louis, $11,123; 4.93 mi. from Macon northward and southward, State Aid Project 20.54, Macon Co., to L. Rich Constr. Co., East St. Louis, $15,181; 6.23 mi. from Osceola northward and southward, State Aid Project 20.74, St. Clair Co., involving 22,837 cu.yd. earth excav., 185.4 cu.yd. Class B and 6 cu.yd. Class C concrete masonry, etc., to M. E. Gilliez, Monett, $14,054; 3.39 mi. from Osceola southwestward, State Aid Project 20.75, St. Clair Co., 13,671 cu.yd. earth and 1,600 cu.yd. rock excav., 164.7 cu.yd. Class B and 6 cu.yd. Class C concrete masonry, to A. T. Cook, Ottawa, Kan., $13,172. Noted June 30 and July 28.

★**Mo., Cameron**—City let contract improving various streets, to P. A. Johnson, Cameron. About $25,000.

★**Tex., Comanche**—Comanche Co. let contract clearing, grubbing, grading, gravel surfacing and draining 17.43 mi. State Highway 18, and 8.03 mi. State Highway 22, to Harris & Powell, Comanche, $129,573 and $55,415 respectively. Noted Sept. 15.

Tex., Ft. Worth—Tarrant Co. received bids paving 13.36 mi. Ft. Worth-Hicks Rd., involving 141,104 sq.yd. of (a) 1½ in. asphalt macadam, (b) 1½ in. asphaltic concrete, or (c) 1½ in. Uvalde rock asphalt, from Tibbetts Constr. Co., Box 179, Mineral Wells, (a) $140,398, (b) $156,625; H. K. McCollum Constr. Co., 224 Texas State Bank Bldg., (a) $125,826, (b) $172,147, (c) $183,435; Womack Constr. Co., Sherman, (a) $130,521.

Tex., Ft. Worth—Tarrant Co. received bids paving 6.84 mi. Kutemans Cut Off Rd., with (a) 1½ in. inverted penetration asphaltic macadam, (b) 1½ in. asphaltic concrete, (c) 1½ in. Uvalde rock asphalt, (d) 3 in. vertical fibre brick with wood header, (e) 1½ in. Warrenite bitulithic, from H. K. McCollum Constr. Co., 224 Texas State Bank Bldg., (a) $74,347, (b) $89,506, (c) $94,558; West Texas Constr. Co., Amarillo, (d) $153,748, (e) $96,724; T. A. Griffin, Seevers St., Dallas, (a) $71,460. Noted Aug. 18.

★**Tex., Greenville**—Hunt Co. let contracts for (a) clearing, grubbing, grading and paving Highway 39, (b) constructing concrete, drainage structures and timber pile trestles on same, involving 23,294 cu.yd. borrow and 14,215 cu.yd. roadway excav., 11.5 cu.yd. concrete, 21,117 gal. bituminous

Streets and Roads (Continued)

material, 7,240.4 cu.yd. crushed stone base, to Hunt Co., c/o A. D. Duck, supt. construction, Greenville, (a) $68,608; Brown-Abbot Co., Loraine, (b) $8,804.

Tex., Groesbeck—Limestone Co. received bids gravel surfacing 4 mi. State Highway 7, involving 176,816 cu.yd. gravel, from G. D. Roan, Groesbeck, $17,472; N. Jones, Groesbeck, $18,359; Deal & Epperson, Big Hill, $18,595. Surfacing material to be furnished by county. Noted Aug. 4.

★**Tex., Henderson**—Ruck Co. let contracts clearing, grubbing, grading and draining 7.02 mi. State Highway 43, to Tibbets Constr. Co., Box 179, Mineral Wells, $47,505 including 10% for engineering and contingencies; 6.96 mi. State Highway 43 to O'Neal Eng. & Constr. Co., Dallas, $27,368 including 10% for engineering and contingencies; 14.92 mi. State Highway 26, to McClung Constr. Co., c/o G. A. McClung, Cleburne, $80,546 including 10% for engineering and contingencies. Materials furnished by county. Noted Aug. 18.

Tex., Linden—Cass Co. received bids grading, gravel surfacing and draining 13.01 mi. State Highway 1-A, involving 10 acres clearing and grubbing, 4,757 cu.yd. borrow, 50,311 cu.yd. roadway excav., 380.7 cu.yd. 1:2:4, 93.8 cu.yd. 1:2½:5 and 53.2 cu.yd. 1:3:6 concrete, 379 lin. ft. creosoted timber piling, 38,939 lb. reinforcing steel, etc., from C. W. Burgess, 710 Haines Ave., Dallas, $52,120; N. B. Gregory, Texarkana, $55,838; Smith Bros., Crockett, $58,969.

★**Tex., Quitman**—Wood Co. let contract grading, draining and graveling 4.43 mi. State Highway 15 A, to McCoy & Bush, c/o W. P. McCoy, Arlington, $66,695 including 10% for engineering and contingencies. Materials furnished by county. Noted Aug. 11.

★**Colorado**—State Highway Dept., Denver, let contract paving 2½ mi. road southwest of Sterling on Lincoln Highway, concrete, Federal Aid Project 142, Logan Co., to H. L. Scott, 327 North 3rd St., Sterling, $82,154; grading and draining 5.5218 mi. Turkey Creek Canon Rd. between Morrison and Conifer, to Peterson, Shirley & Gunther, 3205 Josephine St., Denver, $34,610. Noted Sept. 15.

★**Oregon**—State Highway Comn., Salem, let contracts graveling 10.9 mi. highway in Deschutes Co., to J. K. Shotwell, Herminston, $19,500, 2.4 mi. in Yamhill Co., to F. Ruble, McMinnville, $10,525, 7,700 cu.yd. Crooked River Highway, Crook Co., to Crook Co. Comn., Princeville, $10,395; macadamizing 11.4 mi. in Grant Co., to S. C. Comerford, Boise, Idaho, $25,600, 11.4 mi. in Hood River Co., to Joplin & Eldon, Portland, $54,546, 5.1 mi. in Klamath Co., to Warren Constr. Co., Journal Bldg., Portland, $28,900; grading 5,500 cu.yd. in Jackson Co., to J. L. Calvert, Grants Pass., $3,735, 16,500 cu.yd. in Josephine Co., to Washburn & Hall, Portland, $12,315, 14.3 mi. in Jackson and Deschutes Co., to J. Hampshire, Grants Pass, $37,682; grading and graveling 6.5 mi. in Walheur Co., to Morrison & Knudson, Railroad and Reclamation Aves., Boise, Idaho, $41,128; guard fencing 40,000 lin.ft. in Umatilla Co., to Fragier & Samuels, Salem, $25,000.

California—State Highway Comn., 515 Forum Bldg., Sacramento, received bids paving (1) 3.52 mi. highway between Jamestown and Sonora, Tuolumne Co., involving (a) 9,700 cu.yd. excav., (b) 4,560 cu.yd. Class A Portland cement concrete pavement, (c) 25 cu.yd. Class A Portland cement concrete culverts and monuments, (2) 9.4 mi. highway between west boundary and 1 mi. north of Keystone, involving 11,500 cu.yd. Class A Portland cement concrete pavement, from J. A. Costello, Jr., 1083 Shotwell St., San Francisco, (1a) $2, (1b) $13, (1c) $30, total $82,466; Pacific Constr. Co., San Francisco, (1a) $3, (1b) $4.45, (1c) $35, total $99,426, (2) $16.50, $189,750; Warren Constr. Co., Journal Bldg., Portland, Ore., (1a) $3, (1b) $13, (1c) $33, $92,087, (2) $13, $149,500, $1,495. Noted Aug. 25.

Industrial Works

PROPOSED WORK

N. J., Atlantic City—Union Transfer Co., 1004 Spring Garden St., Phila., soon receives bids building 1 story, 105 x 105 ft. garage with 60 x 150 ft. wing, rein.-con. and steel, rein.-con. flooring, plain foundation, here. C. J. Mitchell, 129 South 15th St., Phila., archt.

N. J., Mt. Holly—W. A. Jones, Washington and King Sts., soon receives bids building 1 and 2 story, 100 x 200 ft., rein.-con. and steel garage and service station, plain foundation. About $70,000. Folson & Stanton, 10 South 18th St., Phila., archts.

Pa., Phila. — Dept. City Transit receives bids about Oct. 31, building 2 substations, one 40 x 60 ft. on Cumberland and Kensington Aves., and one 40 x 70 ft. on Griscom and Arrot Aves. H. H. Quimby, 1211 Chestnut St., engr.

O., Cleveland—Cleveland Electric Illuminating Co., Illuminating Bldg., had plans prepared by M. S. Gallagher, archt., Illuminating Bldg., 2 story, 26 x 60 ft., brick, steel and concrete addition to sub-station, plain foundation, on East 17th St. About $40,000.

O., Lakewood (Cleveland, P. O.)—J. G. Stern, c/o J. C. Froelich, 214 Williamson Bldg., Cleveland, plans to construct 1 story, 70 x 120 ft., brick and steel garage and commercial building, plain foundation, on Madison and Clarence Aves., here. About $50,000. Private plans.

Ill., Chicago—North Amer. Car Co., 328 South La Salle St., soon receives bids building 1 story, 80 x 125 ft. car erection plant, brick and steel, on 135th St. and California Ave. About $40,000. Private plans.

Ill., Evanston—V. C. Carlson, 701 Church St., having plans prepared for 1 story, 40 x 130 ft. auto sales and repair shop, brick, rein.-con. and terra cotta. About $50,000. Architect not announced.

Ill., Granite City—Cabaret Range Co., c/o A. Holloway, plans to construct 4 brick and steel buildings. About $300,000. Architect not selected.

Ill., Harrisburg—C. V. Parker & Co. having plans prepared by H. E. Boyle, archt., Furniture Bldg., Evansville, Ind., for 3 story, 80 x 200 ft. warehouse, rein.-con. and brick. About $150,000. Noted Sept. 15.

Wis., Antigo—Mattefs Bros. Co., c/o G. Mattefs, pres., plans to build 2 story, 60 x 180 ft. factory, rein.-con. steel and brick, rein.-con. flooring, brick foundation, on Main St. About $150,000. Architect not selected, probably private plans.

Wis., Beloit—Beloit Iron Wks., c/o E. H. Neese, vice pres., plans to build 1 story, 60 x 85 ft. rein.-con., brick and steel pattern shop, brick foundation. About $50,000. Architect not selected.

Wis., Milwaukee — Milwaukee Western Fuel Co., 120 Wisconsin St., rejected bids building 1 and 2 story, brick, steel and concrete garage, rein.-con. flooring, plain foundation, on Clinton and South Pierce Sts. Cost between $80,000 and $100,000. Work will be readvertised. Klug & Smith, Mack Blk., archts. and engrs.

Wis., Milwaukee—C. Kalinowski, 1178 7th Ave., had plans prepared by L. M. Gurda, archt., 470 Mitchell St., for 2 story, 40 x 74 ft., bakery, brick, plain foundation, on 8th Ave. About $40,000.

Wis., North Milwaukee—J. Greenebaum Tanning Co. had plans prepared for 2 story, 46 x 70 ft., brick and timber addition, plain foundation. About $40,000. Vaughn & Meyer, Security Bldg., Milwaukee, engrs. Noted Aug. 25.

Wis., Saukille—A. Horn had plans prepared by W. F. Hilgren, archt., Cedarburg, for 1 and 2 story, 40 x 139 ft., rein.-con., steel and brick garage, etc., rein.-con. flooring, brick foundation, on Main St. About $45,000.

Wis., Sheboygan — Eastern Wisconsin Electric Co., c/o H. Ellis, vice pres., 8th and Pennsylvania Aves., plans to build 1 story, 60 x 200 ft., steel and brick, generating and power house, rein.-con. flooring, brick foundation, on 8th St. About $400,000. Architect not selected.

Wis., Sheboygan—Ke-No Mfg. Co., Pennsylvania Ave. and East Water St., having plans prepared by W. C. Weeks, archt., 720 Ontario Ave., for 2 and 3 story, 60 x 100 ft. factory, rein.-con. and brick, brick foundation, on Pennsylvania Ave. About $65,000.

Wis., Waupun—K. Wessel & C. Snyder, 1285 Camd Blvd., St. Paul, plan to build 2 story, 60 x 210 ft. hemp factory, rein.-con., steel and brick, brick foundation, here. About $100,000. Architect not selected.

Neb., Madison—City having plans prepared for addition to electric light plant. About $70,000. Henningson Eng. Co., Natl. Bldg., Omaha, engrs.

Neb., West Point—City c/o S. Lindale, soon receives bids building addition to electric light plant. About $58,000. Koening & Hillister & Co., Bankers Life Bldg., Lincoln, engrs. Noted June 23.

Mo., Sedalia — State Building Comn., Jefferson City, plans to build hog farm on state fair grounds, here. About $125,000.

Tex., Dallas—Dallas Co-operative Ice & Mfg. Co., 907½ Commerce St., had plans prepared and receives bids about Nov. 15, constructing 1 story, 65 x 200 ft., concrete and steel plant, at 4000 Spring Ave. About $72,000. O. J. Bouis, 907½ Commerce St., consult. engr.

Okla., Tulsa—Cosden Refining Co., West Tulsa St., plans to build additions to steam power plant. About $100,000.

BIDS DESIRED

Pa., Altoona—Altoona Overall Co., 1422 11th Ave., receiving bids building 4 story, 50 x 132 ft. rein.-con., brick and steel factory on Chestnut Ave. About $200,000. A. Parish and M. Henderson, owners.

O., Cleveland—F. V. Cipra, Dover, receiving bids building 1 story, 31 x 103 ft., brick garage, plain foundation, at 7005 Lorain Ave., here. About $45,000. Private plans.

O., Cleveland—City Ice & Fuel Co., Cadillac Bldg., receiving bids biulding 1 story, 52 x 75 ft. ice plant, brick and steel, plain foundation, on Addison Rd. About $75,000. C. C. Coneby, Cadillac Bldg., archt.

O., Cleveland—M. H. and I. Stone, Kirby Bldg., receiving bids building 1 story, 40 x 56 ft. brick garage, plain foundation, at 2150 East 55th St. About $40,000. Private plans.

Ill., Chicago—W. P. Doerr, archt., 28 East Jackson St., receiving bids building 1 story, 110 x 125 ft. garage, brick and stone, on Princeton Ave. and 31st St., for R. Munizzo, 2904 South Wells St. About $40,000.

Ill., Moline—Until Sept. 27, by Moline Daily Dispatch, 1509 3rd Ave. A, building 2 story, 50 x 140 ft. publishing plant, rein.-con. and brick. About $150,000. Clausen & Kruse, Central Office Bldg., Davenport, Ia., archts. Noted Sept. 15.

Ill., Oak Park—Until Sept. 29, by G. J. Kingsley, archt., 109 North Dearborn St., Chicago, constructing 5 story, 48 x 58 ft. storage building and warehouse, rein.-con. and brick, for Drechsler Storage & Warehouse Co., 1137 Lake St. About $150,000.

Wis., Oshkosh—Auler & Jensen, archts. and engrs., F.R.A. Bldg., receiving bids building 1 story, 150 x 375 ft., rein.-con., steel and brick factory, rein.-con. flooring, plain foundation, for Oshkosh Tractor Co., 22 East New York Ave. About $175,000. Noted June 23.

Okla., Sayre—See "Waterworks."

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★**Me., Rumford**—Mt. Zircon Water Co., 103 Arch St., Boston, Mass., let contract building 2 story, 50 x 80 ft. brick and timber plant, plain foundation, at South Rumford, to J. H. Kerr, Rumford. Noted Apr. 28.

★**Mass., Boston**—Womens Educational & Industrial Union, 264 Boylston St., let contract building 4 story, brick, concrete and steel factory and laboratory, rein.-con. flooring, plain foundation, on Bway. and Fayette St., here, to C. A. Dodge Co., Erie St., Cambridge. About $100,000.

★**R. I., Providence**—Williams & Anderson Co., 33 Broad St., let contract building 1 story, 60 x 160 ft. factory with 60 x 100 ft. ell, brick, concrete and steel, rein.-con. flooring, plain foundation, on North Main St., Bowerman Bros., 230 Industrial Trust Bldg. About $60,000. Noted Aug. 25.

★**Conn., Danbury**—J. McNiff, 85 Main St., let contract building 1 story, 40 x 180 ft., brick and steel garage and service station, on Center St., to L. J. Sweeney, 26 Montgomery St.

★**Conn., Ansonia**—H. Fosdick, 104 Central St., let contract building 1 story, 75 x 100 ft. brick, concrete and steel garage and

Industrial Works (Continued)

service station, rein-con. flooring, plain foundation, on Central and Jewett Sts., to R. J. Hall, 7 Lester St. About $40,000.

★Pa., New Brighton — Wyckoff Drawn Steel Co., Frick Bldg., will build 1 story, 60 x 200 ft. brick and steel factory in Wyckoff, near here. About $75,000. Work will be done by day labor.

O., Ashtabula—City received bids building superstructure of 1 story, 80 x 80 ft. power plant, brick, steel and concrete, rein. con. flooring, plain foundation, from Service Constr. Co., 6110 Euclid Ave., Cleveland, $62,480; Hughes-Foulkrod Co., Oliver Bldg., Pittsburgh, Pa., $66,300. Noted Feb. 24.

★O., Cleveland—Overland-Larick Co., 18,526 St. Clair Ave., let contract building 1 story, 65 x 150 ft., brick garage, plain foundation, on East 152nd St. and St. Clair Ave., to W. J. Claxton, Vickers Bldg. About $50,000.

★O., Columbus—Columbus Forge & Iron Co., West 1st Ave., let contract building 1 story, 70 x 200 ft. and 110 x 120 ft. factory, to Middle States Constr. Co., 524 East Hudson St. About $50,000. Noted Sept. 1.

★Wis., Milwaukee—Pauly & Marx, 2530 North Ave., let contract building 1 and 2 story, 116 x 130 ft., brick and concrete garage, rein.-con. flooring, plain foundation, on North Ave., to Wilke Bros., 1011 Island Ave. About $50,000. Noted Sept. 8.

★Wis., Milwaukee—Pillsbury Flour Mills, 228 3d St. let contract building 1 story, 64 x 160 ft., brick and timber warehouse, plain foundation, on Reed St., to H. Schmitt & Son, 430 Farwell Ave. About $40,000.

★Wis., Milwaukee—F. Rosenberg Elevator Co., 174 Reed St., let contract building 1 and 2 story, 120 x 223 ft., brick, steel and concrete factory rein.-con. flooring, plain foundation on Richards and Franklin Sts., to Raulf Co., 428 Grand Ave. Cost between $60,000 and $75,000. Noted Aug. 25.

★Wis., Milwaukee—A. Seharf, 516 Burleigh St., will build 1 story, 60 x 120 ft., brick and concrete garage, rein.-con. flooring, plain foundation, on 3d St. About $40,000. Private plans. Work will be done by day labor.

★Wis., Milwaukee — Upper Third St. Realty Co., 989 5th St., let contract building 4 story, 40 x 120 ft., brick and timber plant, plain foundation, on 3rd St., to A. Filter, 989 5th St. About $40,000.

★Wis., Milwaukee—Van Buren Garage Co., 174 Ogden Ave., let contract building 2 story, 57 x 127 ft., brick and rein.-con. garage, rein.-con. flooring, plain foundation, on Van Buren St., to R. Reisinger & Co., 464 Oakland Ave. About $70,000. Noted Sept. 8.

Minn., Minneapolis—Starr-Bullard Motor Co., 1208 Harmon Pl., let contract building 2 story, 75 x 120 or 75 x 200 ft., rein.-con. and brick garage on LaSalle Ave. and 13th St., to C. F. Haglin & Sons, 226 Lumber Exch. Bldg. Cost between $45,000 and $65,000.

Minn., St. Paul—Owen Motor Sales Co., 713 University Ave., let general contract building 1 story addition to present 1 story and erecting 2 story, 50 ft. addition to garage, brick and concrete, to Grant Smith & Co., 1505 Pioneer Bldg. About $40,000. Noted Aug. 4.

★S. D., Redfield—State Bd. Charities and Correction let contract building 2 story, concrete, brick and tile service building, at State School for Feeble Minded, here, to H. F. Stolte, Redfield. About $68 000. Noted July 21.

★Mo., Eldon—Chicago, Rock Island & Pacific RR., 137 West Van Buren St., Chicago, let contract building 1 story, brick and steel round house, here, to T. S. Leake & Co., 608 South Clark St., Chicago. About $50,000. Noted June 9.

★Mo., Sedalia—Swift & Co. let contract building 2 story, 100 x 200 ft. packing plant, rein.-con., brick and steel, to Collins Bros., Rialto Bldg., Kansas City. About $175,000. Noted Sept. 8.

Tex., Dallas—J. T. and J. H. Jones, 2401 Travis St., let contract constructing 2 story 100 x 100 ft. brick garage on Commerce and Parther Sts., to G. W. Hewitt, Slaughter Bldg. About $65,000.

★Que., Montreal—P. Labelle, 721 Dorchester St. W., will build 3 story, 114 x 175 ft. concrete and steel garage, on Argyle and Overdale Aves. Work will be done by day labor. About $150,000.

★Ont., Windsor — Essex Provision Co., Ltd., 1120 McDougall St., let contract building 4 story, 280 x 300 ft. rein.-con. and steel storage plant on McDougall St., to P. H. Secord & Sons, 133 Nelson St., Brantford. About $500,000. Noted Sept. 15.

Buildings

PROPOSED WORK

Me., Lewiston — School — O'Connell & Shaw, archts, 18 Boylston St., Boston, revising plans for 2 story, 128 x 220 ft., brick and steel on Park St., for St. Peters Roman Catholic Church. About $250,000. A. C. Cote, pastor. Noted Mar. 10.

Mass., Everett—High School—Bldg. Com. having plans prepared by Richie, Parsons & Taylor, archts., 15 Ashburton Pl., Boston, for 3 story, brick, concrete and steel, on Bway. About $750,000.

Mass., Newton (Boston P. O.)—Science—Boston College, Chestnut Hill, soon lets contract building 3 story, 75 x 180 ft., stone, brick and steel, rein.-con. flooring, plain foundation, on Commonwealth Ave. and College Rd. Cost between $400,000 and $500,000. Maginnis & Walsh, 100 Boylston St., Boston, archts. Noted Jan. 6.

Mass., North Adams — Grade School — School Bldg. Dept. having plans prepared by R. B. Warner, archt., 168 Bridge St., Springfield, for 2½ story, brick and steel, on State St. About $150,000. Noted July 28.

Mass., Pittsfield—School and Hall—City having plans prepared by G. E. Haynes, archt., Miller Bldg., for 2 story, on Tennyson Ave. About $150,000. M. W. Flynn, mayor.

R. I., Pawtucket—High School—City having preliminary plans prepared by R. C. N. Monahan,, archt., 255 Main St., for high school. About $1,300,000.

N. Y., New York—Clubhouse—Ladies Christian Union, 49 West 9th St., soon receives bids altering 5 story, 81 x 95 ft., brick and stone, brick foundation, at 151-159 East 36th St. About $200,000. Ewing & Allen 101 Park Ave., archts. and engrs. Noted Nov. 11.

N. Y., Utica—Church—First Presbyterian Church having sketches made by Cram & Ferguson, archts., 15 Beacon St., Boston, for 1 story, stone and steel, on Genesee St. About $200,000.

N. J., Hackensack — Hospital — Crowe, Lewis & Wick, archts. and engrs., 200 5th Ave., New York City, soon let contract building 6 story, for managers. Hackensack Hospital. About $700,000. Noted Jan. 13.

N. J., Jersey City—Apartment—H. Temkin, 43 West 30th St., Bayonne, having plans prepared by N. Welitoff, archt., 249 Washington St., for 5 story, 61 x 133 ft., brick, at 53-55 Duncan Ave., here. About $150,000.

Pa., Bedford Springs—Hotel—Bedford Springs Hotel Co. having plans prepared by Rutan, Russell & Wood, archts., Century Bldg., Pittsburgh, for 8 story hotel, here. Cost between $400,000 and $500,000.

Pa., Braddock—Theater—Crystal Amusement Co. having plans prepared by H. S. Bair, archt., Vandergrift Bldg., Pittsburgh, for 1 story, 86 x 135 ft. brick, terra cotta and steel, rein.-con. flooring, concrete foundation, on Braddock Ave. About $200,000.

Pa., Pottsville—Hospital—Homeopathic Hospital, c/o L. Higby, Pottstown, soon receives bids building 2 story, 40 x 100 ft. addition. About $150,000. R. R. MacGoodwin, 1422 Walnut St., Phila., archt.

Pa., State College — Theater — Nittany Theater Co. having plans prepared by H. S. Bair, archt., Vandergrift Bldg., Pittsburgh, for 1 story, 60 x 110 ft. brick and steel, rein.-con. flooring, concrete foundation. About $150,000. Bids being received for foundation.

W. Va., Morgantown — Gymnasium— State Bd. Control, Charleston, having preliminary plans prepared by P. A. Davis, 3rd, archt., Presser Bldg., Phila., for 2 story gymnasium on High and Prospect Sts. About $150,000.

W. Va., Princeton—College—Wysong & Jones, archts., Charleston, opens bids about March 1, building 3 story, 100 x 160 ft., brick, steel, concrete and marble, here, for Emory & Henry College. About $150,000.

W. Va., Princeton—High School—Bd. Educ. opens bids about Feb. 1, building 3 story. About $150,000. Wysong & Jones, Charleston, archts.

N. C., Charlotte—High School—City having plans prepared by Lockwood, Green & Co., archts., Charlotte, for high school. About $200,000.

N. C., Charlotte—Office—J. H. Little and others, 13 North Poplar St., plan to organize stock company and build 8 story. About $250,000.

N. C., High Point—Bank—Commercial Natl. Bank having plans prepared by C. C. Hartman, archt., Greensboro, for 10 story, on Main St. About $500,000. J. E. Cox, pres.

N. C., Winston-Salem—Schools, etc.—City election Oct. 25, to vote on $1,000,000 bonds to build schools and $50,000 for hospital. J. G. Haynes, mayor.

Tenn., Nashville—Dormitories—Peabody Teachers' College, Peabody Campus, having plans prepared by H. C. Hibbs, archt., 4th and 1st Natl. Bank Bldg., for 2 dormitories. About $150,000 each.

O., Akron—School—Bd. Educ. received bids building 2 story, brick, steel and concrete, rein.-con. flooring, plain foundation, on Caldwell Ave., from Carmichael Constr. Co., 524 Hamilton Bldg., $183,000; Akron Storage & Contg. Co., Cole Ave. and Sherman St., $186,000.

O., Cleveland—Apartment—H. Chakford, 11409 Woodworth Rd., plans to build 4 story, 120 x 160 ft., brick, plain foundation, on East 142nd St. and Woodworth Rd. About $200,000. Private plans.

O., Cleveland—Armory—Best & Hoefler, archts., Vickers Bldg., receiving bids building 3 story, brick, steel and concrete, rein.-con. flooring, plain foundation, on Bolivar Rd., for Cleveland Gray's, c/o H. P. Schuppe, capt., 2840 Carnegie Ave. About $200,000. Noted Feb. 17.

O., Cleveland — Commercial — L. Flatau. Realty Co., c/o E. McGeorge, archt., 1900 Euclid Ave., having plans prepared for 6 story, brick, steel and rein.-con., rein.-con. flooring, plain foundation, at 2902 Euclid Ave. About $500,000.

O., Cleveland—Commercial—D. Flatau, Society for Savings Bldg., having plans prepared by A. F. Janowitz, archt., Permanent Bldg., for 3 story, 90 x 120 ft., brick and steel, plain foundation, on Superior Ave. and East 79th St. About $150,000.

O., Cleveland—Commercial and Office—A. Carlin, East 14th St. and Huron Rd., having plans prepared by A. E. Sprackling, archt., Caxton Bldg., for 6 story, 130 x 220 ft., brick, steel and concrete, rein.-con. flooring, plain foundation, on 14th St. and Prospect Ave. About $200,000.

O., Cleveland—Hotel—D. R. Hawley, Cuyahoga Bldg., plans to build 6 story, brick, steel and concrete, plain foundation, on Euclid Ave. opposite Coit Rd. About $200,000. Architect not selected.

O., Cleveland—Jail—Cuyahoga Co. election Nov. 9 to vote on $2,000,000 bonds to build 4 story, brick, steel and concrete, rein.-con. flooring, plain foundation, on West 3rd St. and Lakeside Ave. W. S. Lougee, Marshall Bldg., archt.

Mich., Detroit — School — St. Augustine's Parish, Davison and Justine Aves., having plans prepared by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, for 2 story, 156 x 170 ft. rein.-con., brick and steel, concrete foundation, on Davison and Justine Aves. About $175,000.

Mich., Lapeer—Library—City Library Comn. having plans prepared by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, Detroit, for 2 story, 40 x 80 ft. rein.-con., brick and steel, concrete foundation, on Pearl St. About $150,000.

Ill., Chicago—Apartment—R. F. France, archt., 155 North Clark St., soon receives bids building 3 story, 100 x 150 ft., brick

Buildings (Continued)

and concrete, on Kenmore and Glenlake Aves., for Thorne & Brennon, c/o W. Thorne, 10 South La Salle St. About $160,000.

Ill., Chicago—Apartments—A. V. Teisen, archt., 4804 North Kedzie Ave., preparing plans and soon receives bids building 3 story, 108 x 175 ft., on Kenilworth and Glenwood Aves., $200,000, three 3 story, 112 x 175 ft., on Kenilworth Ave. and Sheridan Rd., $200,000 each, five 3 story, 110 x 175 ft., on Sheridan Rd. and Estes Ave., $250,000 each, all brick and stone, for Plotke & Grosby, 2532 North Clark St.

Ill., Chicago—Office—A. S. Schulman, 440 South Dearborn St., plans to build 21 story, 66 x 125 ft., stone and steel, at 519-31 South Dearborn St. About $2,000,000. Architect not selected.

Ill., Decatur—Apartment—L. S. Baker, archt., 1026 West Macon St., preparing plans for 3 story, 34 x 126 ft., rein.-con., brick and steel, for stock company now being formed. About $150,000.

Ill., Geneva—Hospital—Fox River Valley Community, c/o H. T. Winsor, soon receives bids building 3 story hospital. About $250,000. M. J. Sturn, 115 South Michigan Ave., Chicago, engr.

Ill., Jacksonville — Bank — Elliott Stage Bank having plans prepared by Puckey & Jenkins, archts., 6 North Michigan Ave., Chicago for 2 story, 60 x 145 ft. brick, stone and steel. About $200,000. W. Elliott, pres.

Ill., Rockford — Church — Emanuel Lutheran Congregation plans to build 1 story, brick and stone, steel trusses. About $150,000. J. W. Johnson, pastor. Architect not selected.

Ill., Springfield—Temple—Shrine Scottish Rite Masons plan to build rein.-con., steel, brick and stone. About $900,000. A. E. Baxter, secy. Architect not selected.

Ill., Sterling—Hotel—Local stock company, c/o B. Wilson, 327 a Salle St., Chicago, plans to build 8 story, brick and steel. About $500,000. Architect not selected.

Wis., Beloit—Business—T. D. Woolsey, Goodwin Blk., plans to build 2 and 3 story, 60 x 98 ft.,, brick and rein.-con., brick foundation, on North State St. About $150,000. Architect not selected, probably private plans.

Wis., Milwaukee—Hotel—Wisconsin Bond & Mortgage Co., 440 Bway., having plans prepared by H. W. Voelz, archt., 86 Michigan St., for 7 story, 40 x 70 x 115 ft., brick and concrete, rein.-con. flooring, plain foundation, on Juneau Ave. About $200,000.

Wis., Pulaski—Hotel—H. J. Gajewski having plans prepared by Smith & Reynolds, archts., Dempsey Bldg., Manitowoc, for 3-5 story, 140 x 150 ft., rein.-con., steel and brick, brick foundation, on Main St. About $155,000.

Wis., Racine—Hotel—M. George, c/o Hotel George, Wisconsin and 5th Sts., having plans prepared by A. A. Guilbert, archt., Robinson Bldg., for 10 story, 160 x 250 ft., rein.-con., steel and brick, rein.-con. flooring, brick foundation. About $600,000.

Ia., Bloomfield—School—Bd. Educ. plans to build 2 story, rein.-con., brick, stone and steel. About $160,000. R. C. Bristow, secy. Architect not selected.

Ia., Creston — Church — Congregational Church, c/o G. Newcomb, chn., plans to build 1 story, brick, rein.-con. and stone. Architect not selected.

Ia., Dubuque—Coliseum—Coliseum Bldg. Comn., c/o Leitha & Rust, archts., Main and 4th Sts., plans to build 1 story, 100 x 150., rein.-con., brick and steel. About $170,000.

Kan., Emporia—Hotel—C. K. Williams and associates, Emporia, having plans prepared by J. E. Eberson, archt., 64 East Van Buren St., Chicago, for 7 story, brick, steel and concrete, here. About $300,000.

Kan., Lawrence—High School—Bd. Educ. having plans prepared by W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., for 3 story. About $500,000.

Kan., Topeka—Bank and Office—Farm Mortgage Co., Crawford Bldg., having plans prepared by W. E. Glover, archt., Stormont Bldg., for 6 story, 28 x 75 ft. brick, stone and steel, on 6th St. and Kansas Ave. About $150,000.

Wyo., Laramie — School — School Dist. opens bids in about 60 days, building 2 story, 100 x 140 ft., on 9th and Custer Sts. About $150,000. W. Dubois, Cheyenne, archt. Noted Aug. 11.

Mo., Cape Girardeau—Bank and Office—Cape Bldg. & Loan Assn. plans to build 3 story, rein.-con., brick and stone. About $150,000. Architect not selected.

Mo., Columbia—University—State Bd. Educ., Jefferson City, plans to build university, here. About $585,000.

Mo., Kirksville — College — State Bd. Educ., Jefferson City, plans to build teachers college, here. About $287,000.

Mo., Marysville — College — State Bd. Educ., Jefferson City, plans to build teachers college, here. About $200,000.

Mo., Rolla—School—State Bd. Educ., Jefferson City, plans to build school of mines and metallurgy, here. About $150,000.

Mo., St. Joseph—Asylum—State Health Comn., Jefferson City, plans to build insane asylum, here. About $280,000.

Mo., Springfield — College — State Bd. Educ., Jefferson City, plans to build teachers college, here. About $250,000.

Mo., Warrensburg—College—State Bd. Educ., Jefferson City, plans to build teachers college, here. About $156,000.

Okla., Poteau—Exchange—Poteau Telephone Co. having plans prepared by J. McLaughlin, engr., Bartlesville, for 2 story, 25 x 80 ft. About $200,000.

Col., Denver—Armories—State Adjutant General rejected bids received Sept. 1, constructing 10 armories, each 2 story, at Sterling, Manzanola, Canon City, Delta, Craig, Ft. Morgan, Fruita, Lamar, Brush, and Brighton. About $300,000. Work will be readvertised. A. Young, c/o Natl. Guard, State House archt. Noted Aug. 18.

BIDS DESIRED

Mass., Athol—Town Hall—Until Sept. 27 by town, building 2 story, 50 x 129 ft. and 70 x 80 ft. About $150,000. Brainerd, Leeds, Kellogg & Thayer, 89 Franklin St., Boston, archts. Noted May 5.

Mass., Wakefield — High School — Until Sept. 27 by town, building 3 story, 85 x 210 ft. with 51 x 150 ft. ell, brick and timber, concrete foundation, on Main St. About $450,000. F. I. Cooper Corp., 33 Cornhill St., Boston, archts. Noted June 3.

R. I., Providence—High School—Until Oct. 11, by Pub. Bldgs. Dept., City Hall, building 3 story, 300 ft. front, with 2 wings, 180 ft. deep,. concrete, rein.-con. flooring, plain foundation. About $1,250,000. W. E. Hartwell, City Hall, engr. Hoppin & Field, 32 Westminster St., archt. Noted Sept. 8.

O., Portsmouth—Schools—Until Sept. 30, by W. Hazelbeck, clk. Bd. Educ., building 3 story, 6 room addition to High School, including gymnasium and auditorium, also 2 story, 8 room addition to Lincoln School, brick and concrete. About $150,000 and $125,000 respectively. Pretzinger & Musselman, 1155 Reibold Bldg., Dayton, archts.

O., Uhrichsville—School—Until Sept. 26, by Bd. Educ. building 2 story, 72 x 212 ft., brick, steel and concrete, rein.-con. flooring, plain foundation. About $275,000. J. E. Lewis, 116 Court St., New Philadelphia, archt. Noted May 26.

Mich., Detroit—Office and Transportation —Until Sept. 24, by Bd. Street Ry. Comn., building 3 story, 60 x 218 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on St. Jean Ave. W. C. Markham, Marquette Bldg., engr.

Mich., Detroit—School—Until Sept. 26, by Bd. Educ., building two 2 story, 62 x 133 ft. rein.-con., brick and steel additions, rein.-con. flooring, concrete foundation, on Hindle and Lynn Aves. About $150,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Ill., Chicago—Apartment—P. F. Olsen, archt., 127 North Dearborn St., receiving bids building 3 story, 200 x 217 ft. rein.-con., brick and stone, rein.-con. flooring, on Lake Terrace, for A. Willie, 1200 Sherwin Ave. About $700,000. Noted May 19.

Ill., Chicago—Church—H. K. Holsmon, archt., 310 South Wabash Ave., receiving bids building 3 story, 125 x 125 ft., brick, granite and terra cotta, on Sunnyside and Paulina Sts., for 14th Church of Christ Scientist, c/o architect. About $200,000.

Ill., Chicago—Home—C. D. Faulkner, archt., 140 South Dearborn St., receiving bids building 3 story, 90 x 96 ft., brick, on 113th St. and South Western Ave., for Oak Haven Old Peoples' Home, c/o H. A. White, pres., 140 South Dearborn St. About $200,000. Noted Sept. 1.

Ill., Chicago — Home and Auditorium — Dubin & Eisenberg, archts., 14 West Washington St., receiving bids building superstructure, 3 story, 96 x 278 ft., rein.-con., brick and stone, rein.-con. flooring, North California and Hirsch Aves., for Daughters of Zion Infants' Home and Day Nursery, c/o architects. About $300,000. Noted Sept. 1.

Ill., Chicago—Store and Office—Holabird & Roche, archts., 104 South Michigan Ave., receiving bids building 3 story, 85 x 105 ft. brick, concrete and terra cotta, on Michigan Ave. and Oak St., for Potter Palmer Estate, c/o architects. About $200,000.

Ill., Chicago—Synagogue—D. S. Klafter, archt., 64 West Randolph St., receiving bids building 2 story, 50 x 100 ft., steel, brick, concrete and terra cotta, on Hoyne and Evergreen Sts., for Dorsche Tove Congregation, c/o architect. About $150,000. Noted June 16.

Ill., Chicago — Temple — C. Hatzfield, archt., 7 South Dearborn St., receiving bids building 6 story, 105 x 120 ft ft., rein.-con., brick, and terra cotta, rein.-con. flooring, on 64th and Green Sts., for South Side Masonic Temple Assn., 624 West 71st St. About $175,000. Noted April. 21.

Ill., Chicago — Temple — C. Hatzfield, archt., 7 South Dearborn St., receiving bids building 3 story, 91 x 112 ft., brick, concrete and terra cotta, on Addison and Peta Sts., for Wrights Grove Lodge 7, c/o H. Reinach, 1442 Belmont Ave. About $300,000.

Ill., Danville—Armory—Until Sept. 27, (change of date) by E. D. Martin, state archt., 304 South Wabash Ave., Chicago, building 2 story, 160 x 168 ft., rein.-con. and brick, for State, c/o architect. About $200,000. Noted Sept. 1.

Ill., Evanston — Church — Talmadge & Watson, archts., 189 West Madison St., Chicago, receiving bids building 1 story, rein.-con. and brick addition, on Hinman and Chicago Aves., for Hemenway Methodist Episcopal Church, Hinman and Church Sts. About $150,000. Noted Dec. 23.

Ill., Harrisburg—School—Until Oct. 10, by Bd. Educ., c/o G. Davenport, building 2 story, 140 x 140 ft., steel, concrete and brick, rein.-con. flooring, concrete foundation. About $300,000. A. L. Barnes, 1329 Birchwood Ave., Chicago, archt. Noted July 14.

Wis., Milwaukee—Theater and Business—Until Oct. 1, by Dick & Bauer, archts., 811 State St., building 2 story, 85 x 200 ft., rein.-con. and brick, rein.-con. flooring plain foundation, on Teutonia Ave., for Teutonia Ave. Realty Co., 1110 Teutonia Ave. About $200,000. Noted Aug. 25.

Kan., Leavenworth—Hospital—Until Oct. 1, by Natl. Soldiers Home, c/o W. S. Albright, constructing 2 story, brick and rein.-con. About $1,000,000. W. P. Feth, 405 Delaware St., archt. Noted Aug. 25.

Kan., Rosedale—Hospital—Until Oct. 1, by State Medical School and Hospital, c/o J. A. Kimball, Topeka, constructing 3 story, 64 x 164 ft. About $400,000. R. L. Gamble, 1415 Fillmore St., Topeka, arhct. Noted April 21.

Kan., Wichita — Bank and Office—Until Sept. 29, by K. M. Metzthum & Co., archts., 21 East Van Buren St., Chicago, constructing 6 story, 50 x 140 ft., brick, rein.-con. and Bedford stone, for 4th Natl. Bank, 329 Beacon Bldg. D. F. Callahan, pres. About $200,000. Noted June 9.

Mo., St. Louis—High School—Until Sept. 27, by H. P. Hess, archt., 4811 Cote Brilliante St., building 3 story, 80 x 178 ft., rein.-con., brick and stone, on Newstead and Lindell Sts., for Rosati Kain Catholic High School, c/o A. Cain, 4368 Lindell St. About $300,000. Noted July 28.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

★Me., Kennebunk —High School — School Comrs. let contract building 2 story, 65 x

Buildings (Continued)

100 ft., stone, brick and concrete, plain foundation, on Main St., to D. Knowlton, 54 Canal St., Boston. About $150,000. Noted July 28.

★**Me., Lewiston**—Church—United Baptist Church let contract building 1 story, stone, brick and steel, plain foundation, on Main and Bates Sts., to T. F. Moreau & Co., 468 Lisbon St. About $150,000. Noted Aug. 11.

★**Mass., Boston** — Schoolhouse — City let contract building 2 story, 79 x 141 ft. brick, in Samuel Adams Dist., to Leighton, Mitchell Co., 99 Chauncy St., $185,924.

★**Mass., Newton** (Boston P. O.)—Theater—Newton Theater Co., 415 Center St., let contract building 2 story, 70 x 153 ft., concrete and steel, rein.-con. flooring, concrete foundation, on Washington and Beacon Sts., here, to T. L. Goodwin, Newton Highlands. About $150,000.

★**N. Y., Brooklyn**—Bath — E. Riegelmann, boro pres., Bor Hall, let contract building bath, on Metropolitan and Bedford Aves., to Nugent Constr. Co., 505-5th Ave., New York City, $167,875. Noted Sept. 15.

★**N. Y., Brooklyn**—School—Bd. Educ., 500 Park Ave., New York City, let contract altering and building additions to P. S. 136, on 4th Ave. between 40th and 41st Sts., here, to Frymier & Hanna, 25 West 45th St., New York City, $419,300. Noted Sept. 8.

N. Y., Buffalo—Schools—Bd. Educ. received bids building (1) School 7, on Newberg St. and Lang Ave., (2) School 9, on Sherman, Stanton and Lovejoy Sts., (3) School 11, on Bailey Ave., Regent and Moreland Sts., (4) School 12, on Lorraine Ave. near Abbott Rd., (5) School 2, on Hertel Ave. and Shoshone St., (6) School 6, on Northampton and Fougeron Sts., (7) School 8, on Elmwood Ave. and Tracy St., (a) general construction, (b) plumbing, (c) heating and ventilating, from J. W. Cowper Co., Fidelity Bldg., (1a) $700,860, (2a) $699,090, (3a) $706,580, (4a) $694,650, 6a) $669,450; W. W. Wade, Ashland Ave., (5a) $715,400; C. H. Everitt, Auburn Ave., (7a) $712,804; Power Efficiency Co., White Bldg., (1b) $37,000, (2b) $37,000, (3b) $37,000, (4b) $37,000, (5b) $37,600, (6b) $37,600; (7b) $37,600; Sodeman Heat & Power Co., 2306 Morgan St., St. Louis, Mo., (1c) $134,787, (2c) 134,787, (3c) 134,787, (4c) $134,787, (5c) $136,137, (6c) $136,137, (7c) $136,137. Noted April 28 and July 7.

★**N. J., Montclair** — Church — Central Presbyterian Church, c/o Carrere & Hastings, archts. and engrs., 52 Vanderbilt Ave., New York City, let contract building brick, steel and stone, on Park St. and Claremont Ave., here, to J. Lowry, 171 Madison Ave., New York City. About $250,000. Noted Nov. 18.

★**Pa., Johnstown**—Theater and Hall—Farkas Bros., Fairfield Ave., let contract building 2 story, 44 x 123 ft. concrete, brick and steel, rein.-con. flooring, on Fairfield Ave., to J. Felix, Johnstown. About $150,000. Noted Aug. 18.

★**Pa., McKeesport**—Dormitory, Nurses Home, etc.—McKeesport Hospital let contract building 3 and 4 story, 37 x 168 ft. dormitory, 43 x 54 ft. nurses home 46 x 52 ft. power house, concrete, brick and steel, rein.-con. flooring, on 5th Ave., to E. H. Cannon, Rubin Bldg. About $250,000. Noted Sept. 1.

★**Pa., Meadville**—High School—Bd. Educ. let contract building 2 story, 207 x 250 ft. rein.-con., brick and steel, rein.-con. flooring, concrete and brick foundation, to Natl. Concrete Fireproofing Co., Citizens Bldg., Cleveland, O. About $233,000.

★**Pa., Phila.**—Apartment—D. Crawford, Jr., 701 North 63rd St., will build 4 story, 48 x 156 ft., brick and stone, at 6150-6152 Oxford St. About $150,000. Work will be done by day labor. J. Fernald, 5533 Wyalusing St., archt.

★**Pa., Phila.** — Hospital — Chestnut Hill Hospital, c/o J. W. Harris, Franklin Bank Bldg., let contract building 3 story, 58 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, on Germantown Ave., to F. G. Stewart, 1019 Sansom St. About $191,000.

★**Pa., Pittsburgh**—Exchange—Bell Telephone Co., 416 7th Ave., let contract building 20 story, steel, rein.-con. flooring, on 7th Ave., to W. F. Trimble & Sons Co., 1719 Pennsylvania Ave. About $1,900,000.

★**Pa., Pittsburgh**—Exchange—Bell Telephone Co., 17th and Arch Sts., Phila., to let contract building 4 story, 60 x 100 ft. on Sandusky St., to A. E. S. Wilson Co., 541-3rd Ave.

Pa., Pittsburgh—High School—Bd. Educ. receives bids building Westinghouse High School, 3 story, rein.-con., brick and steel, rein.-con. flooring, from Standard Constr. Co., Pittsburgh, $684,750; Drummond-Miller Co., 4500 Euclid Ave., Cleveland, O., $709,400. Noted Aug. 25.

Pa., Pittsburgh—School—Bd. Educ. received bids building 2 story, rein.-con., brick and steel, rein.-con. flooring, on Perrysville Ave., from Williams & Hass, Empire Bldg., $418,269; A. & S. Wilson Co., 541-3rd Ave., $431,000; Ross & Fisher, Pittsburgh, $462,853. Noted Aug. 25.

Pa., Pittsburgh—School—Bd. Educ. received bids building 2 story, rein.-con. brick and steel, rein.-con. flooring, on Greenfield Ave., from A. & S. Wilson Co., 541-3rd Ave., $499,000; Cuthbert Bros. Co., Bessemer Bldg., $522,800. Noted Aug. 25.

★**Pa., Pittsburgh**—Store—J. Horne Co., Manufacturers Bldg., let contract building 7 story, 120 x 250 ft. rein.-con., brick and steel, concrete foundation, on Stanwix and Duquesne Way, to Mellon-Stuart Co., Oliver Bldg. Noted Aug. 11.

★**Md., Salisbury**—Peninsula General Hospital, Locust and South Division Sts., let contract building 3 story, brick, to North Eastern Constr. Co., 702 Lexington Bldg., Baltimore. About $150,000. Noted June 30.

Miss., Magee—Infirmary, etc.—State, c/o T. C. Link, Dir. Pub. Wks., P. O. Box 636, Jackson, let contract constructing nurses' home, white infirmary, service building, recreation building, power house and laundry building, at sanitorium here, to Smith Co., Industrial Bldg., Birmingham, Ala., $544,030. Bids for negro infirmary to be re-advertised. Noted Aug. 18.

★**O., Akron**—Auditorium and Gymnasium—Bd. Educ. let general contract building 2 story, 18 room, 70 x 166 ft. and 70 x 120 ft., brick and steel, rein.-con. flooring, on Dayton St., to Carmichael Constr. Co., Main St. About $189,000. Noted Sept. 1.

★**O., Alliance**—Commercial and Club—F. O. E. 224 let contract building 3 story, 46 x 110 ft., brick, steel and concrete, plain foundation, to A. F. Wendling Co., Massillon. About $175,000. Noted Aug. 18.

★**O., Cleveland**—Schools—Bd. Educ., East 6th St. and Rockwell Ave., let general contract building John Adams School, 3 story, to Fenbusch-Parker Constr. Co., Union Bldg., $781,617; 2 story, 35 x 217 ft. addition on East 75th St. and Rawlings Ave., brick, steel and concrete, rein.-con. flooring, plain foundation, to H. F. Juergens Co., 1530 Clarence Ave., Lakewood. Noted Sept. 8.

★**O., Dayton**—School—Bd. Educ. let contract building 3 story, rein.-con. and brick, rein.-con. flooring, on Home Ave., to Drummond-Miller Co., 4500 Euclid Ave., Cleveland, $343,500. Noted May 5.

★**O., Elyria**—Schools—Bd. Educ. let contract building 2 story, 85 x 190 ft., on Westview Ave., also East Technical High School, 2 story, brick, steel and concrete, rein.-con. flooring, plain foundations, to L. A. Burgett Co., Lorain. About $225,000 and $165,000 respectively. Noted Aug. 18.

★**O., Marion**—Hotel—Harding Hotel Co. let contract building 156 room, rein.-con. and brick rein.-con. flooring, concrete foundation, to W. E. and A. F. Becher, Lindsey Bldg., Dayton. About $550,000. Noted Sept. 15.

O., Ravenna—School—Bd. Educ. opened bids Sept. 7, building 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, from Watts-Suhribier Co., 1235 Miami St., Toledo, $380,000; R. H. Evans Co., Columbus Savings & Trust Bldg., $386,000; D. W. McGrath, New 1st Natl. Bank Bldg., $389,000. Noted Aug. 26.

Mich., Detroit — Police Station and Armory—Police Dept. received bids building 9 story, 117 x 172 ft. police station and 3 story, 99 x 168 ft. armory, rein.-con., brick, stone and steel. rein.-con. flooring, concrete foundation, on St. Antoine St., from O. Misch Co., 36 State St., $784,300; Bryant & Detwiler, 2336 Dime Bank Bldg., $827,843; A. A. Albrecht Co., 1130 Penobscot Bldg., $829,989. Noted Sept. 1.

★**Ill., Chicago**—Hospital—J. B. Murphy Memorial Hospital, c/o Glaver & Dinkelberg, archts., 400 North Michigan Ave., let contract building 4 story, 158 x 190 ft. brick and concrete, on Belmont Ave. and Bway., to J. W. Snyder & Co., 122 South Michigan Ave. About $700,000.

★**Ill., Chicago**—Hotel—A. Goldberg, c/o Minchin, Spitz & Co., archts., 19 West Jackson Blvd., let contract building 4 story, 100 x 125 ft., brick, concrete and terra cotta, on Stony Island Ave. and 67th Pl., to Chicago Constr. Co., 11 South La Salle St. About $200,000. Noted Sept. 1.

★**Ill., Chicago**—Theater and Store—A. Flower, c/o Roosevelt State Bank, 35th St. and Grand Blvd., let contract building 3 story, 100 x 205 ft., steel, brick and terra cotta, to E. M. Bertha, 11 South La Salle St., Chicago. About $400,000. Noted July 14.

★**Ill., Oak Park**—Hospital—West Suburban Hospital, 300 Clinton Ave., let contract bulding 5 story, 50 x 100 ft., rein.-con. and brick addition, at 506 North Austin Ave., to Strandberg Bros., 19 South La Salle St., Chicago. About $150,000. Noted Aug. 25.

★**Ill., Tuscola**—High School—Bd. Educ. let contract building 2 story, 70 x 225 ft., brick, rein.-con. and steel, to J. P. Moorehead, Tuscola. About $225,000. Noted Sept. 1.

★**Ia., Waterloo** — Church — First Baptist Church let contract building 2 story, 94 x 114 ft., rein.-con., brick and stone, to J. G. Miller, 502 Black Hawk Bank Bldg. About $150,000.

★**Neb., Chadron**—High School—Bd. Educ. c/o F. B. Uthank, secy., let contract building 2 story, 80 x 160 ft., rein-con., stone, brick and steel, to I. E. Mulhollen, Chadron. About $300,000. Noted April 14.

★**S. D., Mitchell**—Hospital—St. Joseph's Hospital Bldg. Comn. let general contract building 3 story, 66 x 155 ft., rein.-con., brick, tile and stone, to W. D. Lovell, 1415 8th St., S. E., Minneapolis, Minn. About $170,000. Noted Aug. 4.

★**Mo., Kansas City**—School—Bd. Educ., c/o J. B. Jackson, secy., Library Bldg., let contract building S. B. Ladd School, 2 story, 79 x 108 ft. and 54 x 93 ft., rein.-con., brick and stone, on 37th and Benton Sts., to Patti-Moore Constr. Co., Okmulgee, Okla. About $175,000.

★**Mo., St. Louis**—School—Bd. Educ., Bd. Educ. Bldg., let contract building Woodward School, 2 story, 94 x 257 ft. rein.-con., brick, stone and steel, on Kingshighway and Alabama St., to E. C. Gerhard, Post-Dispatch Bldg., $254,900. Noted Sept. 8.

★**Mo., St. Louis**—Temple—Scottish Rite Cathedral Assn., La. Salle Bldg., let contract building 4 story, 125 x 230 ft., brick and stone, rein.-con. flooring, on Grand and Lindell Sts., to J. Hill Constr. Co., Syndicate Trust Bldg. About $1,000,000; cost plus percentage basis. Noted April 7.

★**Tex., Dallas**—Store—A. C. Rick, 1315½ Elm St., and associates, let contract constructing 2 story 175 x 310 ft. brick, on Elm and Harwood Sts., to C. Halper, Dallas. About $160,000.

Federal Government Work

PROPOSED WORK

D. C., Bellvue—Chimney—Spec. 4483—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids, constructing, here. Noted Aug. 4.

Va., Yorktown—Water Supply System—Spec. 4514—Bureau Yards & Docks, Navy Dept., Wash., D. C., plan water supply system, Naval Fuel Depot, here.

Ill., Chicago—Radio Station—Spec. 4515—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build on Municipal Pier, here.

Col., Fort Lyon—Steam Distribution System—Spec. 4520—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to install, here.

H. T. Pearl Harbor—Superstructure—Spec. 4518—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to build superstructure for machine shops, here.

BIDS DESIRED

N. Y., Tompkinsville — Riprap — Until Sept. 26, by Supt. Lighthouses, furnishing 10,260 long ton riprap stone, 200 lb. to 5 ton, delivered at tidewater accessible to Government scows, New York Harbor or vicinity.

Fla., Jacksonville—Revetment—Until Oct. 15, by U. S. Engineer. constructing at St.

Federal Government Work (Continued)

Johns Bluff, St. John River, here; advertised in this issue.

La., Alexandria — Tank and Tower — Until Sept. 29, by Treas. Dept., constructing steel water tank and tower, at U. S. Public Health Service Hospital 27, here. J. A. Wetmore, acting superv. archt.

Tenn., Memphis—Plumbing System—Until Oct. 10, by Dist. Engineer, Mississippi River Dredging Dist., P. O. Box 1017, installing plumbing system in warehouse, U. S. Dredge Depot, here; advertised in this issue.

O., Dayton—Hospital—Until Oct. 1, at Office Bd. Mgrs. Natl. Home for Disabled Volunteer Soldiers, constructing 3 story, brick, and rein.-con., rein.-con. flooring, concrete foundation, at Military Home, here. N. E. Schenck, Dayton, archt.

Ind., Marion—Hospital—Until Oct. 1, at Office Bd. Mgrs. Natl. Home for Disabled Volunteer Soldiers, Dayton, O., constructing here. N. E. Schenck, Dayton, archt. Noted Sept. 8.

Wis., Milwaukee—Hospital—Until Oct. 1, at Office Bd. Mgrs. Natl. Home for Disabled Volunteer Soldiers, Dayton, O., constructing here. Scott & Meyer, 445 Milwaukee St., archts. Noted Aug. 18.

Kan., Leavenworth—Hospital—Until Oct. 1, at Office Bd. Mgrs., Natl. Home for Disabled Volunteer Soldiers, Dayton, O., constructing, here. W. P. Feth, 405 Delaware St., archt. Noted Sept. 8.

Wash., Port Townsend—Lighting Plant, etc—Until Oct. 12, by Treas. Dept., Wash., D. C., installing lighting plant, wiring, etc. at U. S. Quarantine Station, here J. A. Wetmore, acting superv. archt.

Ore., Chemawa—Power House, etc.—Until Oct. 5, at Office Comr. Indian Affairs, Interior Dept., Wash., D. C., constructing brick power house and improving heating plant, at Salem Indian School, here. C. H. Burke, comr.

Cal., Stockton — Sewage Ejector — Until Sept. 29, by Treas. Dept., Wash., D. C., installing, here. J. A. Wetmore, acting superv. archt.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Ill., Belleville—Airship Hangar, etc.—Chief Construction Service, Room 2242, Munitions Bldg., Wash., D. C. received bids constructing airship hangar, including boiler house, gas holder, roads, etc., at Scott Field, here, (1) work complete, from Sutherland Building & Contg. Co., Syndicate Trust Bldg., St. Louis, Mo., (1) $1,093,160 (2) $20,450 (3) $3,000 (4) $96,200 (5) $10.81 (6) b $3,258 c $3,343 (7) a $378 b $331-$416 (8) $1.60 (9) $5.50 (10) $125 (300 days) Alternate-roof-skylights, wire screens, etc., of certain make, deduct $41,800, deduct $18,900 for omission of one bay; Sumner-Sollett Co., 79 East Adams St., Chicago, (1) $1,150,000 (2) $20,000 (3) $4,400 (4) $100,000 (5) $25 (8) $3. (10) $1,000 (300 days); Stang & Mitchell, Real Estate Trust Bldg., Phila., (1) $1,160,000 (2) $20,000 (3) $2,800 (4) $108,472 (5) $13,10 for additions, $10,50 for deductions (6) $375, $971, $1,053 (7) $417, $2,200, $2,278 (8) $1.75 (9) $4.10 (10) $2,000. Noted Aug. 18.

Ill., Chicago—Deep Wells—Treas. Dept., Wash., D. C., received bids constructing 2 deep wells at Broadview U. S. Public Health Service Hospital, here, from F. M. Gray, Jr., Inc., 105 Wells St., Milwaukee, Wis., $37,000; J. P. Miller Artesian Well Co., 428 Orleans St., $46,300; W. H. Cater, 2643 West Monroe St., $49,850. Noted Aug. 25.

D. C., Wash.—Heating System—Spec. 4510—Bureau Yards & Docks, Navy Dept., received bids altering and building additions to steam distributing system, here, (1) work complete, from Carroll Electric Co., 714-12th St., N.W., (1) $28,600 (2) $2,550 (3) $120 (4) $187; W. G. Cornell Co., 723-13th St., NW., (1) $31,452 (2) $1,100 (3) $76 (4) $190, Federal Heating Co., 310-13th St., NW., (1) .$34,575 (2) $2,000 (3) $150 (4) $190. Noted Sept. 8.

★Va., Norfolk—Heating System, etc.—Spec. 4512—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract altering and building additions to underground heating and drainage systems, here, to H. E. Crook Co., 28 Light St., Baltimore, M., $22,750 (90 days). Noted Sept. 15.

★S. C., Charleston—Sprinkler System—Spec. 4490—Bureau Yards & Docks, Wash., D. C., let contract for complete wet-pipe systems, automatic sprinklers, in Buildings 5, 7, 10, 13 and 1023, Navy Yard, here, to Globe Automatic Sprinkler Co., 2035 Washington St., Phila., $18,255. Noted Sept. 8.

★Mich., Detroit—Dredging—U. S. Engineer, 337 Federal Bldg., let contract dredging in St. Clair Flats, Canal channels, involving 51,000 cu.yd. sand, silt and clay, with possible over-depth of 61,000 cu.yd., to Greiling Bros. Co., 906 McDonald St., Green Bay, Wis., $11,628. Noted Sept. 15.

N. M., Fort Bayard—Reroofing—Treas. Dept., Wash., D. C., received bids reroofing U. S. Public Health Service Hospital, here, from Johns-Manville Co., 41st St. and Madison Ave., New York City, $25,425; Newport Contg. and Eng. Co., Silsby Bldg., Newport News, Va., $25,650; W. J. Corbett Hardware Co., Truscon, $25,933.

★Cal., Los Angeles—Dredging—U. S. Engineer, 725 Central Bldg., let contract dredging harbor, on east side entrance of channel, to San Francisco Bridge Co., Nevada Bank Bldg., San Francisco. About $140,000. Noted Sept. 8.

★Cal., Mare Island—Riprapping Dike—Spec. 4390—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract riprapping Dike 12, Navy Yard, here, to Union Constr. Co., 604 Mission St., San Francisco, at $0.74 per cu.yd. (250 days). Noted Sept. 15.

★Cal., San Diego—Quay Wall Extension—Spec. 4484—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract extending at Naval base, here, to Ross Constr. Co., 935 Forum Bldg., Sacramento, $129,563 (150 days). Noted Sept. 15.

FEDERAL POWER COMMISSION

Application for Licenses and Permits

Applications

240—**Stene Consolidated Copper Co., Phoenix, Ariz.**—Wants to build dam and reservoir, Bill Williams River, about 30 mi. from mouth, in Mohave and Yuma Counties, Ariz. Project includes 35 mi. power canal and a power house near Planet.

241 — **Freshwater Bay Lumber Co., Douglas, Alaska** — Wants license for low diversion dam, flume and waterwheel, Pavloff Harbor, Chichagof Island, Alaska.

242 — **Minneapolis, Minn.** — City wants permit for power development at U. S. Lock and Dam 1, St. Paul, Mississippi River.

243—**F. C. Dougherty, Palace Hotel, San Francisco, Cal.**—Wants permit to develop power on Karta River, Karta Bay, Prince Wales Island, Alaska. Project includes development of storage in Salmon and Little Salmon Lakes.

244—**F. C. Dougherty, Palace Hotel, San Francisco, Cal.**—Wants permit to develop power Green Lake outlet, Silver Bay; on Baranof Lake outlet, Warm Spring Bay; on Second Lake outlet, Cascade Bay, Baranof Island, Alaska. Project involves development of storage in above lakes.

Miscellaneous

PROPOSED WORK

Tanks — Bayonne, N. J. — Standard Oil Co., Constable Hook, had plans prepared for 3 new steel tanks. About $150,000. J. J. Mulhall, c/o Standard Oil Co., engr.

Parks, etc.—Winston-Salem, N. C.—City election Oct. 25, to vote on $100,000 bonds to build parks and playgrounds. J. G. Haynes, mayer.

Street Lighting System—Neenah, Wis.—City plans to install ornamental street lighting system on Wisconsin Ave. and Commercial St., involving 108 single light, ornamental standard, 2 circuit system. About $25,000. H. Zemloch, clk. Private plans.

Gravel Loaders, Slow Speed Trailers, etc. —St. Paul, Minn.—Ramsey Co. plans to purchase 2 gravel loaders, about $4,500, 6 slow speed trailers, $5,400, 1,000-gal. oil distributor mounted on truck, $9,200, oil storage tanks including boiler, pump and installation, $10,500, 350,000 gal. road oil, $28,000. G. Ries, aud. R. R. Godfrey, Court House, engr.

Electric Light and Power System—Merlin, Ont.—City plans to build electric light and power system. About $15,000. E. D. Lawler, 190 University Ave., Toronto, engr.

Electric Light and Power System — Wilkesport, Ont. — Sombra Twp. plans to build electric light and power system. About $50,000. E. D. Lawler, 190 University Ave., Toronto, engr.

BIDS DESIRED

Asphalt Road Oil, etc.—Brooklyn, N. Y.—Until Sept. 30, by Bd. Purch., Municipa Bldg., New York City, furnishing and delivering asphalt road oil, K. P. tar, broken stone and screenings, to Dept. Parks, here. G. A. Whalen, comr. Plant & Structures, chn.

Memorial Park—Brooklyn, N. Y.—Until Sept. 29, by Park Bd. at office Dept. Parks, Municipal Bldg., New York City, building Fidelity Memorial Park, at Monitor St., Engert and Meeker Aves., here. F. D. Gallatin, pres.

Motor Driven Trucks—New York, N. Y.—Until Sept. 30, by Bd. Purch., Municipal Bldg., furnishing and delivering motor driven trucks to Dept. Plant & Structures. G. A. Whalen, comr. Plant & Structures, chn.

Gravel—Leesville, La.—Until Oct. 3, by Police Jury of Vernon Parish, furnishing 12,600 cu.yd. wash gravel, 25,000 cu.yd. clay gravel, not less than 40% stone, 37,600 cu.yd. sand clay, not less than 50% stone. E. E. Jordan, secy.

Eyebolts—Milwaukee, Wis.—Until Sept. 28, by Central Bd. Purchases furnishing eyebolts with washers, one thousand six hundred and fifty 1⅜ x 24½ in. long. About $1,500.

Fiber Paving Bricks—St. Paul, Minn.—Until Sept. 26, by H. W. Austin, city purch agt., furnishing 60,000 fiber paving bric for repairing Wabasha St. Bridge. O Claussen, city engr.

PRICES AND CONTRACTS AWARDED

(★Indicates award of contract)

Dock Wall—Buffalo, N. Y.—Pub. Wks. Comn., Municipal Bldg., opened bids Aug. 22, constructing (1) concrete dock wall in Buffalo Harbor, (a) Sect. 1, (b) Sect. 2, improving (2) channel and constructing dock wall in Buffalo River, west of Ohio St. Bridge, from G. Parks & Son, Rhode Island St., (1a) $39,799; Amer. Constr. Co., Marion Bldg., Cleveland, O., (1a) $47,373, (2) $122,500; Chesley & Heimbach, Breckenridge St., (1a) $50,000; Great Lakes Dredge & Dock Co., Morgan Bldg., (1b) $150,300; Empire Eng. Co., Inc., North Tonawanda, (1b) $155,700, (2) $114,900; Dunbar & Sullivan Dredging Co., 2211 Dime Bank Bldg., Detroit, Mich., (1b) $201,000, (2) $141,000. Noted Aug. 11.

Inorganic Dust—New York, N. Y.—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Sept. 16, furnishing and delivering 1,500 ton inorganic dust, from E. Myer & Co., 25 Church St., $7.83 per ton, total cost $11,745; New York Trap Rock Corp., 101 Park Ave., $9.34, $14,025; Soper Whiteman & Co., $9.45, $14,175. Noted Sept. 8.

★Heating Plant — Cleveland, O. — Bd. Educ., East 6th St. and Rockwell Ave., let contract building heating plant for John Adams School, to Industrial Heating & Eng. Co., 1063 Windsor St., Akron, $140,421.

★Fire Hydrants — Detroit, Mich. — Fire Comrs. let contracts furnishing 500 six in. double nozzle standard fire hydrants, to Flower Valve Mfg. Co., Clayton and Parkinson Aves., $59.88 each, $29,940; 42 ton special castings, to Almont Mfg. Co., Almont, $4,412. Noted Sept. 1.

★Foundation—Milwaukee, Wis.—Branta & Rechlicz, 721 Lincoln Ave., let contract constructing plain foundation for 3 story, 60 x 120 ft. rein.-con., and brick mercantile building, rein.-con. flooring, on Lincoln Ave., to Ryback & Sadowski, 1092 2d Ave. Total cost about $150,000.

★Street Cleaning Machine — West Allis, Wis.—City let contract furnishing street cleaning machine, to Elgin Sales Corp., Elgin, Ill., $7,250. Noted July 28.

★Portland Cement, etc—St. Paul, Minn.—City let contract furnishing 3,200 bbl. Portland cement, to Gopher Lime & Cement Co., Griggs and Fuller Sts., $2.41 per bbl. f.o.b. St. Paul. Noted Aug. 11.

OFFICIAL PROPOSALS

Bids: Oct. 4.

Sewage Pumping Station

Toledo, Ohio.

Sealed proposals will be received by the Director of Public Service of the City of Toledo, Ohio, until 12 o'clock noon, Central Standard Time, October 4, 1921, for the construction of a Sewage Pumping Station and appurtenances. The work is divided into three (3) contracts, as follows:

CONTRACT 4-II.

SPERSTRUCTURES

The superstructures of the Pumping Station and skimming tank are of brick with stone trimmings and tile and tar gravel roof. The main portion of the Pumping Station is thirty-one feet (31 ft.) high and wings are twenty-three feet (23 ft.) high. Skimming tank is 20 ft. x 30 ft. x 20 ft. Heating, plumbing and electric lighting are included.

CONTRACT 4-III.

EQUIPMENT

This contract includes five (5) Centrifugal pumps with 300 hp. and 200 hp. motors, vacuum pumps, piping, valves, meters and gages for the pumps, electric crane, sewage screens and hoists, switchboard and electrical equipment.

CONTRACT 4-IV.

OUTFALL SEWER.

This contract comprises sixty inch (60 in.) submerged reinforced concrete pipes, reducing in diameter to eighteen inches (18 in.), laid in a dredged trench. The pipes have a total length of somewhat over eleven hundred feet (1,100 ft.).

NOTE—Contract 4-I which comprises substructures connecting and discharging sewers is now under construction.

Bids may be made upon any or all contracts. Copies of plans, specifications, etc., may be obtained from the office of the Director of Public Service, 225 Valentine Building, Toledo, Ohio, and from Fuller & McClintock, Engineers, 170 Broadway, New York City, upon payment of twenty dollars ($20), which will be refunded if plans and specifications are returned in good order within thirty (30) days after bids are received.

Detailed information regarding bid bond, contract bond, etc., is contained in the book of specifications. All bids must be submitted upon printed forms provided for that purpose and must be in accordance with the requirements of the City of Toledo, as set forth in the contract and specifications covering this work.

The Director of Public Service reserves the right to reject any and all bids, are to accept any bid which he may deem advantageous to the City of Toledo.

By direction of

C. A. BENEDICT,
Director of Public Service.

ATTEST:
GEORGE E. LASKA, Secretary.

Bids: Sept. 26.

Water Main Extension

Aurora, Ill.

Sealed proposals for laying a connected system of cast iron water supply lines with valves and fire hydrants in Water District Number One in the City of Aurora, Ill., will be received until 1 o'clock p.m., Central Standard Time, on Monday, Sept. 26, 1921, in accordance with the official advertisement.

The work comprises approximately:

12,500 lineal feet of 6-inch "Class C" cast iron water pipe,
16 fire hydrants,
30 double gate valves.

Each proposal must be accompanied by cash or a certified check in amount not less than 10 per cent of the aggregate amount of the proposal.

Specifications and proposal blanks will be furnished at the office of the City Engineer, in the City Hall Building, Aurora, Ill.

The right is reserved to reject any or all bids.

W. E. DEUCHLER, City Engineer.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Tuesday morning (10 o'clock) can usually be published in the issue out the following Thursday. Special price for Official Proposals, 40 cents a line.

Bids: Oct. 12.

Dredging

Baton Rouge, La.

Sealed bids will be received by the Board of Commissioners of the Bayou Fountain Drainage District of the Parish of East Baton Rouge, Louisiana, at the office of the Police Jury of said Parish corner St. Ferdinand Street and Louisiana Avenue, at 12 o'clock noon, Wednesday the 12th day of October, 1921, for dredging Bayou Fountain and its tributaries, including lateral ditches; total quantities approximately 280,000 cubic yards, as per plans and specifications on file in the office of L. Q. Huey, engineer in charge, Louisiana Avenue and St. Ferdinand Street, city of Baton Rouge.

A certified check for $3,000 must accompany each bid as an evidence of good faith.

The Board of Commissioners reserve the right to reject any or all bids.

L. Q. HUEY, Engineer in Charge.

Bids: October 5.

Bituminous Concrete Road

Providence, R. I.

Sealed proposals for building 4¾ miles of bituminous concrete road from North Scituate to Rockland in the Town of Scituate, R. I., about 12 miles west of the City of Providence, will be received at the office of the Water Supply Board, City Hall, Providence, R. I., until 2:30 p. m. Eastern Standard time, on Wednesday, October 5, at which time and place they will be publicly opened and read.

The work will include grading, culverts, a concrete bridge of three 15-foot spans, a 2-inch bituminous concrete surfacing, guard rails, and other necessary appurtenanoes. The principal estimated quantities are:

Earth excavation and borrow	87,000	cu.yds.
Rock excavation	15,000	" "
Concrete	1,600	" "
Stone foundation	10,000	" "
Gravel foundation	5,000	" "
Crushed stone base	16,000	tons
Bituminous surfacing	51,000	sq.yds.
Asphalt cement	450	tons
Wooden guard rails	21,000	lin.ft.

Pamphlets containing plans, information for bidders, form of proposal, contract and bond and specifications, may be obtained from the Secretary of the Board, City Hall, or from the Chief Engineer, 661 Westminster Street, Providence, R. I.

B. THOMAS POTTER, Chairman,
City of Providence, Water Supply Board,
S. N. GRAMMONT, Secretary.
FRANK E. WINSOR, Chief Engineer.

Bids: Oct. 7.

Water-Works Improvements

Collinsville, Ill.

Proposals will be received by the City Council of the City of Collinsville, Ill., at the Council Chamber until 8 o'clock p.m., the 7th day of October, A.D., 1921, for the furnishing of all material and labor necessary in the installing of two (2) Steam Pumps and the sinking of two (2) Wells, for the Municipal Waterworks Sysem, as proposed and outlined by plans and specifications for each class of work, which said plans are now on file in the office of the City Clerk of said City where they may be inspected, and bidding blanks procured.

Each bidder will be required to accompany with his proposal a certified check in the amount of 10% of the amount of his bid for the guarantee that he will enter into a contract and bond in event of the award of contract.

Each bid must be submitted on the form furnished by the City which provides a means of bidding for each class of work separately; or the work as a whole.

The City of Collinsville, Ill., reserves the right to waive technicalities.

Contract to be awarded to the lowest responsible bidder.

JAMES BAILEY, City Clerk.

Bids: October 3.

Sanitary Sewer System

Brownville, N. Y.

Sealed proposals will be received by the Board of Trustees of the Village of Brownville, N. Y., until 8 p.m. (daylight saving time) of Monday, Oct. 3, 1921, for construction and installation of a sanitary sewer system and a water system according to plans and specifications now on file. Bids will be received on the work as a whole or separately under the following sub-divisions:

Contract A—General Sewer Contract.
Contract B—General Water System Contract.
Contract C—Reservoir Contract.
Contract D—Sewer tile and specials.
Contract E—Cast Iron Pipe and Specials.

Plans and specifications can be seen and bidding forms secured at the office of the Consulting Engineer.

By the Board of Trustees, Brownville, N. Y.

C. J. PATRICK, Clerk.

WILLIAM T. FIELD,
Consulting Engineer,
40 Flower Bldg., Watertown, N. Y.

Bids: Oct. 5.

Sewer Extensions, Pumping Station, Etc.

Glen Cove, N. Y.

Sealed proposals for the construction of sewer extensions, pumping stations and force mains will be received at the office of the City Clerk, Glen Cove, N. Y., until 12 o'clock noon of Wednesday, October 5, 1921.

There are about six miles of 8-inch vitrified pipe sewers, about 2,750 linear feet of 6-inch cast-iron force mains and three small underground concrete pumping stations. Each of the three stations contains two electrically-operated centrifugal pumps of about 200 gals. per minute capacity.

Plans and specifications may be seen at the office of the said City Clerk or at the office of Fuller & McClintock, Engineers, 170 Broadway, New York, from whom copies may be obtained upon the deposit of $10.00 for each set, which deposit will be returned upon return of the plans and specifications.

JAMES E. BURNS,
Mayor.

FULLER & McCLINTOCK,
Engineers.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 3	**St. Paul, Minn.**	Sept. 29
Oct. 3	**New Haven, Mo.**	Sept. 29
Oct. 4	**Norfolk, Neb.**	Sept. 29
Oct. 4	**Kewanee, Ill.**	Sept. 29
Oct. 7	**Collinsville, Ill.**	Sept. 1
Oct. 7	**Elkins, W. Va.** **Adv. Sept. 29.**	Sept. 29
Oct. 13	**Harrisburg, Pa.** **Adv. Sept. 22 and 29.**	Sept. 29
Oct. 24	**Milwaukee, Wis.** **Adv. Sept. 29.**	Sept. 29
Oct. 24	**Salem, N. J.** **Adv. Sept. 29.**	Sept. 29

SEWERS

Bids Close		See Eng. News-Record
Oct. 3	**Brownville, N. Y.**	Sept. 15
Oct. 4	**Clifton, N. J.**	Sept. 8
Oct. 4	**Toledo, O.**	Sept. 15
Oct. 4	**Cary, Ill.**	Sept. 29
Oct. 4	**East St. Louis, Ill.**	Sept. 29
Oct. 6	**Shaker Heights, O.**	Sept. 22
Oct. 6	**New York, N. Y.**	Sept. 29
Oct. 11	**Passaic, N. J.**	Sept. 22
Oct. 11	**Hagerstown, Md.**	Sept. 22
Oct. 18	**Greenwood, Miss.** **Adv. Sept. 29.**	Sept. 29
Oct. 18	**Passaic, N. J.**	Sept. 29

BRIDGES

Bids Close		See Eng. News-Record
Oct. 3	**San Bernardino, Cal.**	Sept. 22
Oct. 3	**Wyoming**	Sept. 22
Oct. 4	**Illinois**	Sept. 22
Oct. 4	**Le Mars, Ia.**	Sept. 29
Oct. 6	**Springfield, Mass.**	Sept. 22
Oct. 6	**Florida**	Sept. 29
Oct. 7	**Florida**	Sept. 29
Oct. 8	**Florida**	Sept. 29
Oct. 10	**Ebensburg, Pa.**	Sept. 29
Oct. 10	**Spanishburg, W. Va.**	Sept. 29
Oct. 10	**North Carolina**	Sept. 29
Oct. 14	**Detroit, Mich.**	Sept. 22
Oct. 14	**Ohio**	Sept. 29
Oct. 19	**Tuscaloosa, Ala.**	Sept. 29

DAMS

Bids Close		See Eng. News-Record
Oct. 3	**New Haven, Conn**	Sept. 29

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Oct. 3	**Olney Springs, Col.**	Sept. 29
Oct. 3	**Flint, Mich.**	Sept. 29
Oct. 4	**Trenton, N. J.**	Sept. 8
Oct. 4	**Boise, Idaho**	Sept. 15
Oct. 4	**Portage, Wis.**	Sept. 29
Oct. 7	**Windom, Minn.**	Sept. 29
Oct. 8	**Mason City, Ia.**	Sept. 29
Oct. 10	**Durham, N. C.**	Sept. 10
Oct. 12	**Baton Rouge, La.**	Sept. 22
Oct. 12	**Stratford, Pa.**	Sept. 29
Oct. 13	**Springfield, Mass.**	Sept. 29
Oct. 14	**Portage, Wis.**	Sept. 29
Oct. 15	**Phila., Pa.**	Sept. 29
Oct. 15	**Memphis, Tenn.**	Sept. 29
Oct. 15	**Osawatomie, Kan.**	Sept. 29
Oct. 15	**Atlantic City, N. J.**	Sept. 29
Oct. 20	**Washington, D. C.**	Sept. 29

STREETS AND ROADS

Bids Close		See Eng. News-Record
Oct. 1	**Montreal, Que.**	Sept. 29
Oct. 1	**New Martinsville, W. Va.**	Sept. 29
Oct. 3	**Klamath Falls, Ore.** **Adv. Sept. 8 to 29.**	Sept. 8
Oct. 3	**Harrisonburg, La.**	Sept. 8
Oct. 3	**California**	Sept. 22
Oct. 3	**Connecticut** Adv. Sept. 29.	Sept. 29
Oct. 3	**Missouri**	Sept. 29
Oct. 4	**Minnesota**	Sept. 15
Oct. 4	**Illinois**	Sept. 22
Oct. 4	**Massachusetts**	Sept. 22
Oct. 4	**Jefferson City, Mo.**	Sept. 29
Oct. 4	**Massachusetts**	Sept. 29
Oct. 4	**St. Joseph, Mo.**	Sept. 29
Oct. 4	**Le Mars, Ia.**	Sept. 29
Oct. 4	Ridgeland, S. C.	Sept. 29
Oct. 4	**Pt. Lavacca, Tex.**	Sept. 29
Oct. 4	**Minneapolis, Kan.**	Sept. 29
Oct. 5	**Providence, R. I.**	Sept. 22
Oct. 5	**Missouri**	Sept. 29
Oct. 5	**Cleveland, O.**	Sept. 29
Oct. 5	**Wisconsin**	Sept. 29
Oct. 5	**Independence, Ia.**	Sept. 29
Oct. 5	**Beaufort, S. C.**	Sept. 29
Oct. 6	**Webster Springs, W. Va.**	Sept. 22
Oct. 6	**Pecos, Tex.**	Sept. 22
Oct. 6	**Winnsboro, S. C.**	Sept. 29
Oct. 6	**Terrell, Tex.**	Sept. 29
Oct 6	**Long Island City, N. Y.**	Sept. 29
Oct. 6	New York, N. Y.	Sept. 29
Oct. 7	**Belleville, Kan.**	Sept. 8
Oct. 7	New York **Adv. Sept. 22 and 29.**	Sept. 29
Oct. 7	**Barnwell, S. C.**	Sept. 29
Oct. 8	**Nephi, Utah**	Sept. 29
Oct. 8	**Wenatchee, Wash.**	Sept. 29
Oct. 8	**Ft. Davis, Tex.**	Sept. 29
Oct. 8	**Eldorado, Tex.**	Sept. 29
Oct. 8	**Athens, Tex.**	Sept. 29
Oct. 10	**Martinsville, Va.**	Sept. 29
Oct. 10	**Muskogee, Okla.**	Sept. 29
Oct. 10	**Hartsdale, N. Y.** **Adv. Sept. 29.**	Sept. 29
Oct. 10	**Jefferson City, Mo.**	Sept. 29
Oct. 10	**Odessa, Tex.**	Sept. 29
Oct. 10	**Midland, Tex.**	Sept. 29
Oct. 10	**Stanton, Tex.**	Sept. 29
Oct. 10	**North Carolina**	Sept. 29
Oct. 11	**Leavenworth, Kan.**	Sept. 8
Oct. 13	**Weehawken, N. J.**	Sept. 15
Oct. 14	**Belleville, Kan.**	Sept. 15
Oct. 14	**Ohio**	Sept. 29
Oct. 17	**Alabama**	Sept. 15
Oct. 17	**Los Angeles, Cal.**	Sept. 29
Oct. 17	**Southport, N. C.** **Adv. Sept. 15 and 29.**	Sept. 29

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Oct. 4	Oklahoma City, Okla.	Sept. 29

BUILDINGS

Bids Close		See Eng. News-Record
Oct. 4	**Pineville, La.**	Sept. 15
Oct. 4	**Lawrence, Kan.**	Sept. 29
Oct. 4	**Springfield, Mo.**	Sept. 29
Oct. 4	**Oklahoma City, Okla.**	Sept. 29
Oct. 4	**Blue Island, Ill.**	Sept. 29
Oct. 5	**Boston, Mass.**	Sept. 29
Oct. 7	**Poughkeepsie, N. Y.**	Sept. 29
Oct. 8	**Kirksville, Mo.**	Sept. 29
Oct. 10	**Harrisburg, Ill.**	Sept. 22
Oct. 11	**Providence, R. I.**	Sept. 22
Oct. 11	**Marshalltown, Ia.**	Sept. 29
Oct. 12	**Merrill, Wis.**	Sept. 29
Oct. 13	**Springfield, Mass.**	Sept. 29
Oct. 14	**Sioux Falls, S. D.**	Sept. 29
Oct. 18	**Three Lakes, Wis.**	Sept. 29
Oct. 20	**Lorain, O.**	Sept. 29
Oct. 24	**Cleveland, O.**	Sept. 8
Jan. 15	**Laramie, Wyo.**	Sept. 29
Feb. 1	**Williamsport, Pa.**	Sept. 8

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Sept. 30	Gate Locks and Valves—Rock Island, Ill. Adv. Sept. 8 to 29.	Sept. 8
Oct. 4	Refrigerating Plant—Key West, Fla.	Sept. 15
Oct. 5	**Power House, etc.**—Chemawa, Ore.	Sept. 22
Oct. 6	**Alterations to Post Office, etc.—Springfield, Mo.**	Sept. 15
Oct. 10	**Plumbing System—Memphis,** Tenn. Adv. Sept. 22 and 29.	Sept. 22
Oct. 12	**Lighting Plant, etc.—Port Townsend, Wash.**	Sept. 22
Oct. 12	**Storehouse — Anacostia,** D. C.	Sept. 29
Oct. 12	**Operating Building — Port Arthur, Tex.**	Sept. 29
Oct. 12	**Water Supply Main**—Quantico, Va.	Sept. 29
Oct. 13	**Heating System — Hull, Mass.**	Sept. 29
Oct. 15	**Revetment — Jacksonville, Fla.** **Adv. Sept. 22 and 29.**	Sept. 22
Oct. 17	**Recreation Building—Chicago, Ill.** **Adv. Sept. 29.**	Sept. 29
Oct. 18	**Mailing Vestibule—Sioux City,** Ia.	Sept. 29
Oct. 19	**Repairs — Ft. Stanton, N. M.**	Sept. 29
Oct. 20	Fire Alarm System—North Little Rock, Ark.	Sept. 29
Oct. 22	Emergency Dams — Seattle, Wash. Adv. Sept. 29.	Sept. 29

MISCELLANEOUS

Bids Close		See Eng. News-Record
Oct. 3	Gravel—Leesville, La.	Sept. 22
Oct. 4	Cranes, etc.—Stapleton, S. I., N. Y.	Sept. 8
Oct. 4	Dragline Machine—Greenville, Miss. Adv. Sept. 15 to 29.	Sept. 15
Oct. 4	Inorganic Dust—New York, N. Y.	Sept. 29
Oct. 10	Dock Walls, etc. — Buffalo, N. Y.	Sept. 29
Oct. 14	Electrical Equipment — Detroit, Mich. Adv. Sept. 29.	Sept. 29
Oct. 20	Incinerator — Montreal, Que.	Sept. 29
Oct. 22	Cut Stone—Wash., D. C. Adv. Sept. 29.	Sept. 29
Oct. 26	Jetty — New Westminster, B. C.	Sept. 29

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Pa., Oakmont—Suburban Water Co. plans additions to pumping facilities. $80,000. J. N. Chester, Union Bank Bldg., Pittsburgh, engrs.

Pa., Reading—Making plans pumping station, pumps, equipment, etc. $150,000. L. T. Klauder, Pennsylvania Bldg., Phila., engr.

N. C., Asheville—Water and sewerage systems in Grove Park, to Kelly, Wilson & Creasman Plumbing Co., Asheville, $111,000.

S. C., Walhalla—Election Oct. 4, to vote on $95,000 bonds for waterworks. J. B. McCrary Eng. Co., 3d Natl. Bank Bldg., Atlanta, Ga., engrs.

Ill., Rock Island—Plans 4 and 6 in. c.i. mains in 22d and 37th Sts. $27,000. W. Treichler, 4409 7th Ave., engr.

Wis., Rhinelander—Will take bids next spring for 10,905 ft. mains in Briggs, Minola, Curran and Monico Sts. $32,727. A. Moe, clk. Engineer not selected.

Waterworks (Continued)

Kan., Centralia—Takes bids soon waterworks. $60,000. R. H. Hammond Co., 605 Gumbel Bldg., St. Louis, Mo., engrs.

S. D., Wall—Making plans waterworks, including dam, reservoir, filter, and 25,000 bbl. steel tank on 100 ft. tower. $17,000. H. R. Albion, Deadwood, engr.

Mo., Liberty — Having plans prepared 233,000 gal. capacity steel and pipe, water softening plant, two 500,000 gal. capacity electric driven low service pumps, two 500,000 gal. capacity electric driven high service pumps, $60,000. W. E. Barnes, Liberty, engr.

Tex., Cameron—See "Sewers."

Okla., Fairland—Election in October to vote on $65,00 bonds for addition to waterworks. H. G. Olmstead & Co., 415 Oil Exch. Bldg., Oklahoma City, engrs. Noted Sept. 22.

Okla., Pawhuska — Making plans for pumping stations, reservoir and mains. $177,000. W. I. Broaddus, clk. H. G. Olmsted & Co., Trademans Bank Bldg., Oklahoma City, engrs. Noted Sept. 1.

Okla., Tulsa—Having surveys made for 65 mi. pipe line, dam and reservoir. Holway Eng. Co., Tulsa, engrs.

Utah, Salem—Will soon take bids for flow line and distributing system with small concrete reservoir. $21,000. McGonagle & Ullrich, Deseret Bank Bldg., Salt Lake City, engrs. Noted Sept. 8.

Utah, Salt Lake City—Having plans prepared rein.-con. reservoir on Sunnyside Ave. near mouth of Emmigration Canyon. $75,000. S. Q. Cannon, City Bldg., engr.

BIDS DESIRED

N. J., Salem—Oct. 24, by W. B. Dunn, city recdr., high and low service pumping machinery. W. H. Boardman, 426 Walnut St., Phila., engr.; adv. this issue.

Pa., Harrisburg—Oct. 13, by City Council, extending and improving water works, Contrs. A, B, C and D; S. F. Hassler, supt. pub. safety; adv. this issue.

W. Va., Elkins—Oct. 7, waterworks system. B. Kress, 8 & 9 Fair Bldg., engr.; adv. this issue.

Ill., Kewanee—Oct. 4, six in. c.i. mains in South Lang, Gilbert and George Aves. $25,000. J. Palmer, City Hall, engr. Noted Aug. 4.

Wis., Milwaukee—Oct. 24, by P. Braman, comr. pub. wks., pumping machinery for Riverside pumping station; adv. this issue.

Minn., St. Paul—Oct. 3, by H. W. Austin, city purch. agt., 139 ton water pipe, special castings, c.i. gate valves, service connection boxes, 400 bbl. Portland cement and 95 ft. 12 in. vitr. sewer pipe. O. Claussen, city engr.

Neb., Norfolk—Oct. 4, 4 and 6 in. c.i. pipe, 22 hydrants, 11 valves, and 6,057 fittings, $29,196. H. H. Tracy, Norfolk, engr.

Mo., New Haven—Oct. 3, for 4,000 ft. 4 in. Class B c. i. pipe, 1,400 lb. special castings, 7 double nozzle fire hydrants, three 4-in. gate valves with boxes, 100 lb. dry jute or hemp yarn and 700 lb. leadite or metalium. Fuller & Beard, Chemical Bldg., St. Louis, engrs.

BIDS RECEIVED

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro, Boro Hall, mains and appurtenances in Crescent, Guyon, Garretson and Wandel Aves., Nicholas St., Old Town and Willowbrook Rds., also Evelyn Pl., from G. Gloriana, 426 Bowery, New York, $26,285; N. De Stephano, $26,599; Knight & DeMicco, Inc., 448 East Tremont Ave., New York, $27,700. Noted Sept. 22.

O., Cleveland—Comrs. Cuyahoga Co. (1) 1 story, 21 x 26 ft. brick pumping station, (2) two 2,000,000 gal. centrifugal pumps, (3) 44,520 ft. 4-12 in. c. i. water pipe, (4) 86 x 158 ft. rein.-con. storage reservoir, 1,500,000 gal. capacity, from A. S. Hecker, 8901 Union Ave., (1) $4,492, (4) $44,559; R. G. Backus, Citizens Bldg., (2) $9,792; Post Constr. Co., Fairchild Ave., (3) $187,000; D. Pfahl Co., Guardian Bldg., (3) $205,000.

CONTRACTS AWARDED

Mass., West Springfield—Water Supply Comrs., 5,000 ft. 16 in. c.i. water pipe from Piper Reservoir down Kings Highway to Elm and Park Sts., Kelso Ave., and then direct into repair shops of Boston & Albany R.R. Work will be done by day labor.

Conn., Bristol—Bd. Water Comrs., 201 City Hall, New Britain, sinking tubular wells near White Bridge, here, in connection with the new water system for New Britain, to A. W. Drake Drilling Co., Scranton, Pa., $6,000. Total cost $4,000,000. Noted Sept. 1.

Conn., New Britain—Bd. Water Comrs., 201 City Hall, core borings at Shuttle Meadow Dam, here and Southington, in connection with new water system, to Giles Drilling Co., 30 Church St., New York, $5,000. Total cost $4,000,000. Noted Sept. 1 under "Miscellaneous."

N. Y., S. I. St. George—N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, hauling and laying mains in Arden, Clinton, Catlin, Finley, Division, Grandview, Greeley, Highland and Lyman Sts., etc., Annadale, Belair, four corners, Great Kills, Helena and Mill Rds., also Hooker Pl., to Knight & De Micco, 448 East Tremont Ave., New York, $35,790. Noted Sept. 15.

Minn., St. Paul—For 800 lengths 6 in. c. i. pipe, to Glamorgan Pipe Co., The Rookery, Chicago, $43.10 per ton, $8,000. Noted Sept. 1.

Sewers

PROPOSED WORK

R. I., Providence — Making preliminary plans 24 in. and 36 in., brick and concrete sewer connecting to present system and supplying needs of northwestern section and adjoining suburbs. $130,000. M. H. Brousdon, city engr.

N. Y., Wilson—Having preliminary surveys made for sewerage system. $50,000. Hopkins & Field, 349 Cutler Bldg., Rochester, engrs.

S. C., Walhalla—Election Oct. 4, to vote on $30,000 bonds for sewerage system. J. B. McCrary Eng. Co., 3d Natl. Bank Bldg., Atlanta, Ga., engrs.

Fla., Chipley—Making plans sanitary and storm sewers in various streets, $40,000. J. Boyd, c/o State Highway Dept., Montgomery, Ala., engr.

Ala., Troy—Plans election to vote on $25,000 bonds for sewerage system extension, also some curb and gutter work. J. Boyd, Highway Dept., Montgomery, engr.

O., Columbus — City and Franklin Co. plan sewerage system to carry away sewage now emptied into Torrence Run. $75,000. R. H. Simpson, City Hall, engr.

Ill., La Salle—Making plans 10-20 in. vitr. or concrete tile sewers in Lafayette St. $27,000. E. Bryne, city engr.

Ill., Rockford—Making plans double intercepting sewerage system and disposal plant. $820,000. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs. Noted Sept. 22.

Wis., Appleton—Making plans for 1.9 mi. 6, 8 and 10 in. trunk sewers in Atlantic, Richmond and Packard Sts. $30,000. O. A. Weissgerber, city engr.

Wis., Ripon—Making plans rebuilding septic tank, $25,000. C. R. Koudy, City Hall, engr. Noted Sept. 8.

Ia., Charles City—Plans 8 in. glazed tile sewers in various streets. $25,000. J. S. Dawson, Charles City, engr.

Ia., Dennison—Plans 3,107 ft. 18-30 in. storm sewers in Washington Ave. $25,000. J. Johnson, clk.

Ia., Des Moines—Plans storm sewers in West 39th St. $30,000. J. M. Tipee, City Hall, engr.

Ia., Newton—Jasper Co. making plans sewerage system. $400,000. S. R. Sterling, 1521-31st St., Des Moines, engr.

Minn., Willmar—Plans storm sewers and water mains in various streets. $15,000 H. Gunderson, clk.

Mo., Jackson—Plans election to vote on $100,000 bonds for sanitary sewerage system. A. C. Moore, 1710 Murphy St., Joplin, engr.

Ark., Piggott—Making preliminary plans for sewers and water works. Bonds for $80,000 to be voted for project. A. C. Moore, 1710 Murphy St., Joplin, Mo., engr.

Tex., Cameron—Plans election to vote on $250,000 bond issue for sewage disposal plant, waterworks and electric light and power plants. Eng. Serv. Co., 606 Sumpter Bldg., Dallas, consult. engrs.

Okla., Pawhuska—Voted $76,000 bonds sewers in various streets. W. I. Broaddus, clk. H. G. Olmsted & Co., Tradesmans Bank Bldg., Oklahoma City, engrs.

BIDS DESIRED

N. Y., New York—Oct. 6, by H. Bruckner, pres. Bronx Boro, sewer and appurtenances in LaSalle Ave. from Eastern Blvd. to Puritan Ave., Crosby Ave. between adjoining sections of LaSalle Ave.; regulating, grading, and laying sidewalks, etc., on East 156th St. from Southern Blvd. to Whitlock Ave.; paving East 186th St. from Arthur to Belmont Aves., sheet asphalt on concrete foundation.

N. J., Passaic—Oct. 18, by Passaic Valley Sewerage Comrs., 128 Market St., Newark central portion of Sect. 19, Sta. 41 plus 00 to Sta. 50 plus 25, Garfield-Wallington-Passaic Branch Intercepting Sewer, here. 925 lin.ft. earth excav. and refilling, in trench, for 42 in. concrete sewer, 800 lin.ft. earth excav. and refilling, in trench for 24 in. concrete sewer, 460 lin.ft. earth excav. and refilling, in trench for 12 in. vitr. sewer, 720 cu.yd. concrete masonry, 3,500 lb. steel for concrete reinforcement, etc. J. R. Van Duyne, ch. engr.

Miss., Greenwood—Oct. 18, by City Clerk storm sewers and appurtenances. F. T Walker, city engr. Adv. this issue.

Ill., Cary—Oct. 4, Bd. Local Impvts sewerage system, 11,153 ft. 8 in., 2,497 ft 10 in. and 2,006 ft. 12 in. pipe, 47 manholes small disposal plant, etc.

Ill., East St. Louis—Oct. 4, sewerage system in McKinley Pl., 6 and 8 in. vitr. clay pipe, etc., $28,000. W. J. Veach, comr Private plans.

Minn., St. Paul—See "Waterworks."

BIDS RECEIVED

N. J., Garfield—Passaic Valley Sewerage Comrs., 128 Market St., Newark, part of Sect. 19 Garfield River-Crossing, (1) lump sum, earth excav., dredging and refilling, in trench, etc., (2) lump sum, laying 30 in. c.i. pipe line across Passaic River, (3) 130 cu.yd. concrete masonry, in place with Portland cement mortar, (4) 40 cu.yd. brick masonry, etc., from L. B. Harrison & Co. and Broadhurst Co., Paterson and Hackensack, (1) $27,000, (2) $1,700, (3) $15.40 per cu.yd., (4) $30, total cost $34,495; H. E. Fox Constr Co., 81 East 125th St., New York, (1) $25,000, (2) $4,500, (3) $22, (4) $35, $40,540; Merritt & Chapman Derrick & Wrecking Co. 17 Battery Pl., New York, (1) $30,000, (2) $6,000, (3) $26, (4) $30, $46,155. Noted Sept. 1.

O., Akron—Director Pub. Serv. (1) Northside Interceptor Sewer, (2) Little Cuyahoga Interceptor sewer, (3) sewer in South Arlington St. Dist., from M. H. O'Toole, Akron, (1) $39,601; W. Hunt & Sons, 518 Metropolitan St., (1) $43,223, (2) brick, $87,332; Crane, Darrow & Lombardi, Akron, (1) $43,987; T. E. McShaffrey, Forge St., (2) segment block, $73,787, brick, $74,057, (3) segment block, $68,593, rein.-con., $76,741; Steven & McKeon, Cleveland, $83,928. Noted Sept. 15.

CONTRACTS AWARDED

Mass., Chicopee—Pub. Wks. Dept. City Hall, 1575 ft. vitr. pipe in Bway. through

Sewers (Continued)

Hendricks St. and Huntington Ave., 750 ft. 27 in. vitr. pipe in Munroe Ave. and 1,200 ft. 15 in. vitr. pipe in Waite Ave., $35,000. Work will be done by day labor.

Conn., New Haven—Vitr. sewer extensions in Chapel St., to Dwyer & Mannix, New Haven, $11,317; Fountain St., to Beridino & Monnocchio, 179 Market St., Hartford, $19,202; Wight St., to P. Colwell, 21 Gilbert St., $1,090; South Water St., to United Contg. Co., Colony St., Meriden, $494. Noted Sept. 8.

N. Y., Buffalo—For 5 ft. Amco segment block sewer in Colvin St., to Dark & Co., 654 Main St., $79,777.

N. J., Palmyra—Palmyra Twp. 12 mi. 5-30 in. vitr. sewers, to J. M. Kelly, 509 Federal St., Camden, $93,000. Noted Aug. 25.

N. J., Princeton—Sewage treatment plant, to Dempsey & Hardy, Harrison St., $40,000.

S. C., Greenville—Sewerage system, to Tucker & Laxton, Realty Bldg., Charlotte, $51,961; disposal plant, to Henry Constr. Co., Greenville, $22,852.

O., Canton—Sect. 4 east side intercepting sewer from 8th St. N. E. to 19th St. N. E. and Harrisburg Rd. N. E., 8,240 ft. 8-27 in. pipe, to D. Nickles, 1533 Tuscarawas St. E., $43,560.

O., Ruggles Beach—C. E. Ruggles sewage plant and 1 mi. 15 in. sewers, to A. C. Schultz, Sandusky, $40,000.

Minn., Breckenridge—Trunk line storm sewers in about 15 blocks and lateral storm sewers in about 6 blocks, to J. M. Carroll, Grand Forks, N. D., $18,914. Noted Sept. 8.

Minn., St. Cloud—For sanitary and storm sewers in Impvt. Dist. 547, to E. T. Webster, 437 Beacon St., St. Paul, $39,799. Noted Sept. 15.

Okla., Stillwater—Sewerage sytem and Imhoff disposal plant, 17,000 ft. 12-21 in. pipe, to Municipal Excavator Co., 200 East Main St., Oklahoma City, $28,884. Noted May 12.

Ont., Whitby—See "Streets and Roads."

Bridges

PROPOSED WORK

N. H., Manchester—Making plans steel and concrete highway bridge over Merrimack River, $800,000. Fay, Spofford & Thorndike, 15 Beacon St., Boston, engrs.

Mass., Holyoke—Bd. Pub. Wks. plans steel bridge over canal on Canal St. extension, $25,000. T. J. McCarthy, city engr.

Mass., Holyoke—Bd. Pub. Wks., City Hall opens bids about Oct. 10, 150 ft. rein.concrete and steel bridge, 16 ft. wide, over 1st level canal. $45,000. T. J. McCarthy, city engr.

North Carolina—State Highway Dept., Raleigh, plans 250 ft. rein.-con. bridge over Mills Creek, State Project 648, McDowell Co., $30,000; 300 ft. bridge, probably rein.-con., over Mountain Creek, State Project 644, Rutherford Co., $30,000. C. M. Upham, state highway engr.

Tenn., Clarksville—State Highway Dept., Nashville, takes bids about Oct. 17, steel truss bridge, rein.-con. approaches, over Cumberland River, near here. $500,000. D Q. McComb, ch. engr.

Tenn., Nashville—Making plans rein.-con. viaducts on Church and Meridian Sts. $350,000. Freeland, Roberts & Acker, 1219 Independent Life Bldg., consult. engrs. Noted Jan. 13.

Ill., Sterling—Plans 150 ft. bridge, steel truss spans, concrete abutments, 36 ft. roadway, 1st Ave. $50,000. E. O. Hillss, Court House, Morrison, engr.

Tex., Del Rio—Val Verde Co. takes bids about Oct. 10, bridge over Pecos River, three 150 x 18 ft. steel spans, concrete flooring, 2 rein.-con. abutments and 2 rein.-con. piers, 833 cu.yd. 1:2:4, 491 cu.yd. 1:2 1/2:5 and 114.8 cu.yd. 1:3:6 concrete, 408,900 lb. structural and 67,526 lb. reinforcing steel, etc. $100,000. G. M. Jowers, co. engr.

Col., Denver—Plans viaduct over railroad tracks, on 16th St., to replace present one. Cost between $300,000 and $600,000 and same to be borne by City, Denver Tramway Co., 14th and Arapahoe Sts., Burlington, Denver & Rio Grande R. R. and Colorado Southern R. R., 17th and Welton Sts. J. B. Hunter, City Hall, engr.

BIDS DESIRED

Pa., Ebensburg—Oct. 10, by H. T. Jones, controller Cambria Co., 55 ft. rein.-con. bridge over Bens Creek, Washington Twp., $30,000. H. F. Dorr, Trust Bldg., engr.

W., Va., Spanishburg—Oct. 10, by Comrs. Mercer Co., (Princeton), 420 ft. steel truss bridge, concrete flooring, 16 ft. roadway over Bluestone River, near here. J. R. Rich, co. road engr.

North Carolina—Oct. 10, by State Highway Comn., at div. office Wilmington, bridges and culverts on State Project 517, Columbus Co., 2,022 cu.yd. Class A concrete, 241,690 lb. reinforcing steel, 3,570 ft. untreated timber piles, etc., $75,000; State Project 622, Columbus and Robeson Counties, 1,407 cu.yd. Class A and 63 cu.yd. Class B concrete, 99,823 lb. reinforcing and 112,500 lb. structural steel, 5,600 ft. untreated timber piles, 258 sq.yd. asphalt wearing surface, etc., $64,000; on State Project 596, Cumberland and Sampson Counties, 405 cu.yd. Class A and 143 cu.yd. Class B concrete, 67,900 lb. reinforcing and 73,700 lb. structural steel, 1,650 ft. untreated timber piles, 556 sq.yd. asphalt wearing surface, etc., $26,000; on State Project 541, Pender Co., 1,884 cu.yd. Class A and 29 cu.yd. Class B concrete, 214,340 lb. reinforcing steel, 5,670 ft. untreated piles, etc., $70,000; on State Project 623, Bladen Co., 740 cu.yd. Class A concrete, 64,900 lb. reinforcing steel, 900 ft. creosoted and 1,800 ft. untreated timber piles, 350 sq.yd. asphalt wearing surface, etc., $35,000. C. M. Upham, Raleigh, state highway engr.

Florida—Oct. 6, by State Rd. Dept., Tallahassee, rein.-con. culverts and slab bridges on Projects 21, 22, 23, 24 in Columbia, Baker, Nassau and Duval Counties, 662 cu. yd Class A and 413 cu.yd. Class B concrete, 57,467 lb. steel, $30,600; on Project 11, Rd. 1, in Baker, Nassau and Duval Counties, 654 cu.yd. Class A. and 470 cu.yd. Class B concrete, 61,500 lb. steel, $33,700. J. A. Mortland, state bridge engr.

Florida—Oct. 7, by State Rd. Dept., Tallahassee, rein.-con. culverts and bridges on State Rd. 4 from Duval Co. line north through Callahan, Project 32, Nassau Co., 1,027 cu.yd. Class A and 259 cu.yd. Class B concrete, 108,485 lb. steel, $38,500; on State Rd. 2, from Burnetts Lake to Gainesville, Project 33, Alachua Co., 493 cu.yd. Class A and 398 cu.yd. Class B concrete, 59,996 lb. steel, $26,730; on State Rd. 2, from Lake City north to Suwannee River, Project 26, Columbia Co., 314 cu.yd. Class A and 70 cu.yd. Class B concrete, 29,900 lb. steel, $11,520.. J. A. Mortland, state bridge engr.

Florida—Oct. 8, by State Rd. Dept., Tallahassee, rein.-con. bridges and culverts on State Rd. 3 from Sisco to Volusia Co. line, Project 18, Putnam Co., 175 cu.yd. Class A and 486 cu.yd. Class B concrete, 42,348 lb. steel, $19,830; on State Rd. 3 from Le Leon Springs to Putnam Co. line. Volusia Co., 665 cu.yd. Class A and 174 cu.yd. Class B concrete, 65,987 lb. steel, $25,170. J. A. Mortland, state highway engr.

Ala., Tuscaloosa—Oct. 19, at office of W. S. Keller, state highway engr., Montgomery, 633 ft. bridge over Warrior River between here and Northport, consisting of two 186 ft., one 142 ft. and one 109 ft. steel spans. Superstructure involves 1,489,000 lb. structural steel in towers and spans, 215 cu.yd. Class A concrete, 1,905 sq.yd. creosoted wood floor, 135.55 cu.yd. concrete in sidewalks, and 3,498 lb. reinforcing steel, etc.; substructure involves 1,500 cu.yd. Class A concrete, 46,000 lb. reinforcing and 990 lb. structural steel, etc. J. A. L. Waddell, 35 Nassau St., New York, consult. engr. Noted Mar. 17.

Ohio—Oct. 4, by Dept. Highways and Pub. Wks., Columbus, bridges in following counties: Adams Co., Sect. "D" I. C. H. 124, $6,180; Cuyahoga Co., Sect. "J" I. C. H. 36, rein.-con., $31,250; Geauga Co., Sects. "V-2" and "W-1" I. C. H. 35, $14,284; Seneca Co., Sect. "K" I. C. H. 449, concrete slab, $3,179; Wayne Co., Sect. "H" I. C. H. 24, steel, $13,523; Williams Co., Sect. "C" I. C. H. 309, $1,773; E. S. Smith, state highway engr.

Ia., Le Mars—Oct. 4. Auditor Plymouth Co., 28 box culverts and extensions. G. S. Huxtable, co. engr.

CONTRACTS AWARDED

N. J., Trenton—Joint Comn. for Elimination of Toll Bridges over Delaware River between New Jersey and Pennsylvania, 125 West State St., Trenton, steel floor system with asphalt pavement to bridge over Delaware River between here and Morrisville, Pa., to C. Poinsett, 37 Maple Ave., $56,750. Noted Sept. 15.

Indiana—State Highway Comn., Capitol Bldg., Indianapolis, steel truss, Sect. G, State Aid Project 8, Lake Co., to Highway Iron Products Co., Ligonier $5,583; steel truss, rebuild pier and paint steel, Sect. F, State Aid Project 22, Morgan Co., C. R. Lybrook, Logansport, $16,607; plate girder, wood block floor and painting, Sect. C, State Aid Project 34, Fayette Co., O. Kirtley, Plainfield, $4,368; rein.-con. culverts, Sect. A, State Aid Project 35, Howard Co., Norris & Butt, Chili, $2,213. Noted Sept. 15.

Ia., Le Mars—Plymouth Co., 1 box culvert, 7 I-beams, wood piling abutments, to Standard Bridge Co., 1302 City Natl. Bank Bldg., Omaha, Neb., $6,435; 59 box culverts, 2 I-beams and 2 pony trusses, to Deloit Bridge Co., Denison, $35,900.

Ia., Muscatine—Muscatine Co., 28 box culverts and extensions to F. J. Smith, Tipton, $8,819; 1 circular, 1 I-beam and 16 box culverts, to S. R. Johnston, Tipton, $11,058; 1 thru and 3 pony trusses, to E. Souchanour, Muscatine, $21,539. Noted Aug. 25.

Tex., San Augustine—San Augustine Co. steel and concrete bridge and timber pile trestles on section of Highway 21, 1,073.9 cu.yd. Class A and 87.5 cu.yd. Class B concrete, 80,830 lb. reinforcing and 260,860 lb. structural steel, to McClung Constr. Co., c/o G. A. McClung, Cleburne, $74,621; 100 ft. steel span bridge over Attoyac River, 30 rein.-con. abutments with concrete floor, 375.3 cu.yd. Class A concrete, 29,804 lb. reinforcing and 78,378 lb. structural steel, 350 cu.yd. dry structural excav. to Austin Bros. Bridge Co., Coombs St., Dallas, $19,878. Noted Aug. 25.

Ont., Hamilton—For 2 concrete and steel bridges, to Russell Townsend Co., Hunter St. E., Peterboro, $43,375.

Dams

PROPOSED WORK

Ont., London—Election Dec. 5, to vote on $150,000 bonds for 350 ft. dam. E. V. Buchanan, Hydro Offices, engr.

BIDS DESIRED

Conn., New Haven—Oct. 3, by Dept. of Parks, 20 City Hall, concrete diversion dam at Beaver Ponds Park. G. X. Amrhym, genl. supt.

Railways

CONTRACTS AWARDED

Ontario—Canadian Pacific Ry., Windsor St., Montreal, Que., 60 mi. extension from Kipawa to Desquinze, to Angus & Taylor, Ltd., Main St., North Bay, $1,250,000.

Excavation and Dredging

PROPOSED WORK

Wis., Green Bay—Drainage—Pensaukee Drainage Co. having plans prepared for excavating and laying 6, 8 and 12 in. drain tile, to cover 45,000 acres. $50,000. L. M. Schindler, 721 Clark St., Appleton, engr.

Wyo., Cowley—**Drainage**—Cowley D. D. plans tile and open ditch drainage system, 135,000 cu.yd. excav., 24,020 ft., 10 in., 12,476 ft. 12 in., 19,494 ft. 15 in. tile, 69 manholes, $152,000. H. T. Ketchum, secy. E. E. Bell, Cody, engr. Noted Apr. 7.

Mont., Shelby—Irrigation—Marias Irrigation Dist., c/o J. A. Johnson, Shelby, plans election $10,000,000 bonds for dis-

Excavation and Dredging (Continued)

tributing system and reservoirs. System to store waters from Cut Bank and Badger Creeks, Two Medicine River; canals and ditches, for distributing system to about 200,000 acres. Gerharz & Jaqueth Eng. Co., 514-1st Nat'l Bank Bldg., Great Falls, engrs.

BIDS DESIRED

Florida—Canals—Oct. 8, by State Rd. Dept., Tallahassee, canals along proposed fill of Choctawhatchee River bridge approach, Holmes Co. $50,000. J. A. Mortland, state bridge engr.

Wis., Portage—Drainage—Oct. 14, by Farm Drainage Bd., c/o H. V. Tennant, secy., Columbia Co. Farm Drain No. 10, 15,300 ft. open ditch; Columbia Co. Farm Drain No. 12, 16,000 ft. open ditch.

Ia., Mason City—Ditch—Oct. 8, by Cerro Gordo Co., drainage ditch, Project 108, 5 mi. 6-22 in. tile, $40,000. P. Weigand, aud. H. D. Keerl, M. B. A. Bldg., engr

Minn., Windom—Ditch—Oct. 7, by Cottonwood Co., for Co. Ditch 31, 60,970 lin.ft. 6-36 in. tile, etc., $39,524. L. J. Klock, Windom, engr.

Col., Olney Springs—Drainage—Oct. 3, by L. Maucher, secy Olney Springs D. D., 7 mi. 8-15 in. tile. $30,000. R. Sawyer, Ordway, engr.

CONTRACTS AWARDED

Ia., Bedford—Excavation—Taylor Co. excavating 6 mi. channel, Platte River D. D. 4, 591,000 cu.yd., to O. P. Herrick, 704 Observatory Bldg., Des Moines, $0.1099 per cu.yd. Noted July 21.

Mo., Benton — Excavation — Scott Co., 791,000 cu.yd. earth excav. in D.D. 12 also 102,000 cu.yd. in D.D. 14, to W. E. Callahan Constr Co., 1107 Great Southwestern Life Bldg., Dallas, Tex., $85,000 and $13,200 respectively. Noted **Aug. 4.**

Mo., Cape Girardeau—Ditches — Little River D. D., Cape Girardeau, 46 mi. 4-36 ft. open ditches, Stoddard and Bollinger Counties, to Walb Constr. Co., La Grange, Ind., $205,000. Noted Sept. 8.

Streets and Roads

PROPOSED WORK

Vt., Rutland—Plans improving various streets. $50,000. J. P. Feeley, comr. Pub. Wks. Dept.

Conn., Thompsonville — Town Selectmen plan paving various highways. $50,000.

New Jersey—State Highway Dept., Broad St. Bank Bldg., Trenton, rejected bids paving Route 9, Sect. 4, through Dunnellen, Middlesex Co. Noted Sept. 8.

N. J., Avon—Plans paving 9½ mi. Main St., $85,000. L. Sofield, mayor.

North Carolina—State Highway Dept., Raleigh, plans clearing, grubbing, grading, bridging and surfacing 21 mi. State Project 559, Mecklenburg Co., $175,000, 14 mi. State Project 587 B, Iredell Co., $200,000, 17 mi. Burnsville-Marshall Rd., State Project 649, Yancey Co., $170,000; 8.6 mi. road from Lenoir to Burke Co. line, State Project 650, Caldwell Co., $86,000; clearing, grubbing, grading, draining and topsoiling 11 mi. State Project 638, Buncombe Co., $132,000. C. M. Upham, state highway engr.

North Carolina—State Highway Comn., Raleigh, plans grading, draining and paving with concrete or asphaltic material, 9 mi. State Project 630 B, Gaston Co., $360,000. C. W. Upham, state highway engr.

N. C., Greensboro—Guilford Co. plans grading, draining and topsoiling 6 mi. road from extension of Greene St. east to Groomestown Rd., $25,000 grading, draining, topsoiling and rebuilding 8 mi. road from Gorrell St., here, to Stewarts Mill on McConnell Rd., $35,000. C. O. Lowe, Greensboro, engr.

N. C., Greensboro—Guilford Co. plans grading, draining and topsoiling 10 mi. road from Jamestown via Guilford College to Battle Ground, $40,000; grading, draining and paving with some type hard surface 1.8 mi. road from Mechanicsville to Methodist Protestant Orphanage, $30,000.

N. C., Kenansville—Duplin Co. plans grading, draining, and sand-clay surfacing 12 mi. Kenansville-Wards Bridge Rd. $50,000. J. J. Bowen, secy. Co. Highway Comn.

La., Monroe—Plans paving between 15 and 20 mi. streets. $2,000,000.

Alabama—State Highway Dept., Montgomery, having surveys made, grading, draining and surfacing with gravel or sand-clay 6 mi. Newton-Ozark Rd., from Choctawhatchee River to Ozark, Dale Co.; with gravel 15 mi. Brantley-Andalusia Rd. from Brantley to Covington Co. line, Crenshaw Co. and 11 mi. Dublin-Orion Rd. Montgomery Co. W. S. Keller, state highway engr.

O., Columbus — Plans to issue $200,000 bonds to pave West Broad St. from High St. to bridge, Cleveland Ave. from Long to Buckingham Sts., Chestnut St. from High to 4th Sts., 4th St. from State St. to Livingston Ave., Fair Ave. from Champion to Miller Aves., Goodale St. from High to Henry Sts., Mt. Vernon Ave. from Cleveland to St. Clair Aves., Park St. from Erie to Goodale Sts., Rich St. from High to 5th Sts. and 3d St. from Livingston Ave. to Naghten St. R. H. Simpson, City Hall, engr.

O., Dayton—Plans to pave 2,460 ft. Holly St. from Wayne to Wyoming Sts., 8,200 sq. yd. vitr. brick on concrete base and 5,100 li.ft. cement curbing. $52,540. G. Baker, city engr.

Mich., Detroit—Plans paving Lillibridge Ave. from Canfield to Shoemaker Aves., sheet asphalt, $52,670; L alley between 2nd, Woodward and Webb Aves. and city limits, 1 course concrete, $2,510. C. W. Hubbell, city engr.

Ill., Winnetka—Making plans paving Linden Ave., vitr. brick on concrete base. $35,000. Windes & Marsh, 598 Birch St., engrs.

Wis., Waterloo—Will soon take bids rein. con. paving, curbing, guttering 0.9 mi. Madison and Monroe Sts., 25 ft. wide. $30,000. Parsons & Orbert, 216 West Water St., Milwaukee, engrs.

Ia., De Witt—Making plans paving various streets, concrete on rein.-con. base. $30,000. J. G. Thorne, Howes Bldg., Clinton, engr.

Minn., LeSueur—Plans to pave about 6 blocks Main St., $25,000. J. A. Morgan, clk.

Minn., Sauk Rapids—Plans paving about 8 blocks Bway. with concrete. $30,000.

Kan., Beloit—Mitchell Co. c/o D. L. Shannon co. engr., making plans 6.86 mi. Sect. C, Federal Aid Project 1, 20 ft. wide bituminous macadam on concrete base. $150,000. M. W. Watson, State House, Topeka.

Kan., Osawatomie—Plans to pave various streets, 6,500 sq.yd. brick and concrete, 6,500 ft. concrete curbing and guttering. $27,000. J. Wallard, clk.

Tex., Del Rio—Val Verde Co. will soon take bids grading, gravel surfacing and draining 4.3 mi. State Highway 12, 12,151 cu.yd. borrow, 2,598 cu.yd. roadway and 24,890 cu.yd. solid rock excav., 72.18 cu.yd. 1:2:4, 1329 cu.yd. 1:2½:5 and 124.43 cu.yd. 1:2:3½ concrete, 8,719 lb. reinforcing steel, 3,698 cu.yd. crushed rock and 6,249 cu.yd. gravel surfacing, $95,000. G. M. Jowers, co. engr.

Tex., Georgetown—Williamson Co. making plans clearing, grubbing, grading gravel surfacing and draining 7.51 mi. State Highway 36-B, 3,504 cu.yd. borrow, 25,564 cu. yd. roadway and 517 cu.yd. rock excav., 445.6 cu.yd. 1:2:4 and 8.9 cu.yd. 1:2½:5 concrete, 35,707 lb. reinforcing steel, 12,839 cu.yd. limestone shale. $41,475. R. A. Nichols, co. engr.

Okla., Pauls Valley—Making plans surfacing 20 blocks, 36 ft. wide, vitr. brick or asphalt on concrete base. $60,000. J. S. Bottoms, clk. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

BIDS DESIRED

Massachusetts—Oct. 4 by Dept. Pub. Wks., Div. Highways, Room 413 State House, Boston, 7,400 ft. bituminous macadam highway in Agawam, $40,000. A. W. Deane, state highway engr.

Connecticut—Oct. 3, by C. J. Bennett, state highway comr., 240 Farmington Ave., Hartford, bituminous macadam highways in towns of Burlington, Norwich Preston and North Stonington; adv. this issue.

New York—Oct. 7, by H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, improving highways in Chenango, Essex, Herkimer, Orange, Rockland, Seneca, Steuben, Suffolk and Westchester Counties, reconstructing highways in Cattaraugus, Schenectady, Tioga and Westchester Counties. J. C. Finch, secy.; adv. this issue.

N. Y., Hartsdale—Oct. 10, by Bronx Parkway Comn., 72 West Pendfield Rd. Bronxville, paving portion Bronx River Parkway Dr. over bridges 32 and 33, between here and White Plains, Contr. 55. J. Downer, engr. and secy.; adv. this issue.

N. Y., Long Island City—Oct. 6, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., regulating, grading and paving, etc., Rockaway Blvd. from New York Ave. to Nassau Co. line, preliminary pavement of rein.-con. Former bids rejected. Noted Sept. 22.

N. Y., New York — Oct. 6, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., regulating and repaving Commerce St. from 7th Ave. to Barrow St., Minetta Lane from MacDougal St. to 6th Ave., Minetta St. from Bleecker St. to Minetta Lane, East 56th St. from 3rd to Park Aves., 97th St. from Central Park West to Amsterdam Ave., sheet asphalt on concrete foundation, Liberty St. from Bway. to West St., 4 in. granite block on existing concrete foundation.

N. Y., New York—Oct. 6, by Park Bd. at office of Dept. Parks, Municipal Bldg., furnishing, setting and resetting curbstones and otherwise improving public driveway between 155th and Dyckman Sts. F. D. Gallatin, pres.

Va., Martinsville—Oct. 8, at office of Clerk Henry Co., grading, draining and topsoiling 5.9 mi. road from Morgans Ford bridge to point on Ridgeway and Spray Rd., $25,000; 15.8 mi. from Martinsville via Leatherwood to county line, $50,000; 7.46 mi. from Dillons Fork via Center Church to county line, $27,000. H. D. Whittle, Martinsville, engr.

W. Va., New Martinsville — Oct. 1, by Wetzel Co. grading and draining 3 mi. New Martinsville-Wileyville Rd. $25,000. J. H. Lentz, co. engr.

North Carolina—Oct. 10, by State Highway Comn., at div. office, Wilmington, grading, draining and surfacing 1.56 mi. State Project 622, Columbus and Robeson Counties, 47,850 cu.yd. borrow and 3,000 cu.yd. drainage ditch excav., 3,900 cu.yd. artificial sand-clay and 490,000 sta. yd. overhaul, $275,000; 3.35 mi. State Project 621, Robeson Co., 47,500 cu.yd. common excav. and borrow, 31,910 ft. 6 x 12 in. concrete curb, 30,130 sq.yd. gravel base with asphaltic top, 313 cu.yd. Class A and 108 cu.yd. Class B concrete, 39,950 lb. reinforcing and 73,700 lb. structural steel, 1,410 ft. timber piles, etc., $125,000; 11.22 mi. State Project 517, Columbus Co., 20 acres clearing and grubbing, 79,300 cu.yd. common excav. and borrow, 15,000 cu.yd. drainage ditch, 1,200 ft. 15-30 in. concrete or c.i. lock joint pipe, 86 cu.yd. Class B concrete, 29,000 cu.yd. sand-clay surfacing, $49,000; 13.2 mi. State Project 623, Bladen Co., 16 acres clearing and grubbing, 73,000 cu.yd. common excav. and borrow, 1,536 ft. 15-30 in. concrete or c.i. lock joint pipe, 15,000 cu.yd. drainage ditch, 35,000 cu.yd. topsoiling and 100 cu.yd. Class B concrete, $50,000; 15.6 mi. State Project 518, Pender Co., 50 acres clearing and grubbing, 82,200 cu.yd. common excav. and borrow, 1,614 ft. 15-30 in. concrete or c.i. lock joint pipe, 36,550 cu.yd. topsoil, 358 cu.yd. Class A and 105 cu.yd. Class B concrete, 28,070 lb. reinforcing steel, $65,000. C. M. Upham, Raleigh, state highway engr.

N. C., Southport—Oct. 17, Comrs. Brunswick Co., 74,000 sq.yd. pavement, etc. J. Jenrette, chn; adv. this issue.

S. C., Barnwell—Oct. 7, by Barnwell Co., grading and surfacing 9.9 mi. Kline-Williston Rd. between Allendale Co. line, and surveying Sta. 527-150, here, 46,997 cu.yd. common excav., and 24,528 cu.yd. sand-clay surfacing. J. S. Still, superv.

Streets and Roads (Continued)

S. C., Beaufort—Oct. 5, by Beaufort Co., grading and surfacing 20.8 mi. Beaufort-Yemasse Rd., between city limits and Hampton Co. line. Work to be done under two contracts, one involves 100,462 cu.yd. common excav., 75,775 cu.yd. embankment and 14,447 cu.yd. sand-clay surfacing, other involves 63,360 sq.yd. reconstructed shell base course, 95,040 sq.yd. new shell base course, 158,400 sq.yd. double bituminous surface treatment or 2 in. asphaltic concrete surface. W. J. Thomas, c/o Co. Highway Comn., engr.

S. C., Ridgeland—Oct. 4, by Jasper Co., grading, surfacing and bridging 14.7 mi. Charleston-Savannah Highway, between Pocataligo and point near here, 120,920 cu. yd. common excav., 36,335 cu.yd. sand-clay surfacing, and 2 timber bridges. J. E. Gill, superv.

S. C., Winsboro—Oct. 6, by Fairfield Co., grading and surfacing 4.8 mi. Columbia-Charlotte Rd., between end of Project 90 in Simpson and town of Ridgeway, 24,165 cu.yd. common and 250 cu.yd. rock excav., 15,182 cu.yd. topsoil. M. C. Boulware, Winnsboro, engr.

Ohio—Oct. 14, by Dept. Highways and Pub. Wks., grading, draining and building bridges in following counties:

Vinton Co., Sect. "C" I. C. H. 398, 2.955 mi., $54,991.

Wayne Co., Sect. "P" I. C. H. 96, 2.028 mi., $34,006.

Sect. "K" I. C. H. 417, 3,471 mi, $21,410. L. C. Herrick, dir. highways.

O., Cleveland—Oct. 5, paving Aetna Rd. from East 78th to East 82nd Sts., Ardmore Ave. from Pearl Rd. to West 45th St., Bosworth Rd. from Parkhurst Dr. to Governor Ave., Colonial Court from Woodhill Rd. to Frank Ave., East 69th St. from St. Clair Ave. to its northern end, East 130th St. from Abell Ave. to Buckeye Rd., East 133rd St. from Miles to Marston Aves., East 134th St. from Caine to Beechwood Aves., East 140th St. from Ashwood to Abell Aves., East 144th St. from St. Clair to Aspinwall Aves., East 154th St. from School to St. Clair Aves., Fairchild Ave. from East 114th St. to Murrayhill Rd., Imperial Ave. from East 116th to East 130th Sts., Jeffries Ave. from Turney Rd. to East 86th St., Jeffries Ave. from Warner Rd. to city limits, Locust Ave. from West 112th to West 117th Sts., Parkview Ave. from East 116th to East 123rd Sts., Rhodes Court from Meyer to Storer Aves., $200,000. R. Hoffman, City Hall, engr.

Wisconsin—Oct. 5, by State Highway Comn., Div. Office 6, 213 Barstow St., Eau Claire, grading and surfacing 9 mi. Eau Claire-Mondovi Rd., Federal Aid Project 205, Eau Claire Co., 4,680 cu.yd. gravel surfacing on shale base which is already in place.

Ia., Independence—Oct. 5, Auditor Buchanan Co., draining Jesup-Winthrop Primary Rd., Federal Aid Project 5, 41,742 lin. ft. 6 in., 6,105 ft. 8 in. and 1,550 ft. 10 in. tile.

Ia., Le Mars—Oct. 4, Auditor Plymouth Co., grading and draining 13.21 mi. Primary Rd. Project 74, from Woodbury Co. Line northeast through Hinton, and from here north to Sioux Co. Line, 174,281 cu.yd. excav.

Kan., Eldorado—Oct. 8, by Butler Co. surfacing 10½ mi. Project 90, $250,000. H. Austin & Co., Eldorado, engrs. Noted Sept. 1.

Kan., Minneapolis—Oct. 4, by city, paving, grading, curbing and guttering various streets, $30,000. L. W. Rexroad, Minneapolis, engr.

Missouri—Oct. 3, by State Highway Dept., at div. office Princeton, 3.63 mi. road from Princeton southward, 24 ft. wide, State Aid Project 20.79, Mercer Co., $29,048. A. Graham, Jefferson City, state highway engr. Noted Sept. 2.

Missouri—Oct. 5, by State Highway Dept., at div. office Lancaster, 6.09 mi. road from Lancaster eastward and southward, State Aid Project 20.48, Schuyler Co., $37,812. A. Graham, Jefferson City, state highway engr. Noted Sept. 22.

Mo., St. Joseph—Oct. 4, curbing, guttering and surfacing Frederick Ave., asphalt on concrete base. $96,000. W. K. Seitz, City Hall, engr.

Tex., Athens—Oct. 8, by T. B. Wofford, mayor, 28,950 sq.yd. concrete or brick pavement, 8,300 lin.ft. concrete curb, 11,200 cu. yd. earth excav., $100,000. G. M. Scroggins, city clk.

Tex., Big Springs—Oct. 10, by T. Brooks, judge Howard Co., grading, gravel surfacing and draining, 34.2 mi. State Highway 1, 69,284 cu.yd. borrow, 64,183 cu.yd. roadway, 2,806 cu.yd. loose rock and 5,211 cu.yd. solid rock excav., 1,547.47 cu.yd. 1:3:4 and 91.7 cu.yd. 1:2½:5 concrete, 139,741 lb. reinforcing steel, 71,833 cu.yd. gravel to be furnished by county, $298,000. R. W. Baker, co. engr.

Tex., Ft. Davis—Oct. 8, by J. W. Merrell, judge Jeff Davis Co., clearing, grubbing, grading, gravel surfacing and draining, 7.2 mi. State Highway 1, 1,175 cu. yd. borrow and 700 cu.yd. loose rock excav., 34.62 cu.yd. Class B and 283.5 cu.yd. 1:2:3½ concrete, etc. $25,400. A. L. White, co. engr.

Tex., Midland—Oct. 10, by J. M. Armond, judge Midland Co., grading, gravel surfacing and draining 26.91 mi. Bankhead Highway, State Highway 1, 92,850 lin.ft. grader work, 58,828 cu.yd. borrow, 23,170 cu.yd. roadway excav., 437.3 cu.yd. 1:2:4 and 84.3 cu.yd. 1:2½:5 concrete, 43,534 lb. reinforcing steel, 56,147 cu.yd. gravel surfacing to be furnished by county. $215,000. R. W. Baker, Big Springs, co. engr.

Tex., Odessa—Oct. 10, by J. T. Cross, judge Ector Co., grading, gravel surfacing and draining 24.74 mi. State Highway 1, 61,552 cu.yd. borrow, 29,576 cu.yd. roadway and 2,755 cu.yd. solid rock excav., 347.9 cu.yd. 1:2:4 and 56.9 cu.yd. 1:2½:5 concrete. $224,130. R. W. Baker, Big Springs, co. engr.

Tex., Pt. Lavaca—Oct. 4, by S. L. Marsh, judge Calhoun Co. surfacing, grading and draining 11.37 mi. State Highway 7, 10,561 cu.yd. borrow, 9,740 cu.yd. roadway excav., 166.7 cu.yd. 1:2:4 concrete, 14,867 lb. reinforcing steel, 20,105 cu.yd. mud shell to be furnished by county. $88,160. R. H. Phillips, c/o Lone Star Eng. Co., Nat'l Bank of Commerce, San Antonio, engr.

Tex., Stanton—Oct. 10, by A. G. Odom, judge Martin Co., at (Midland), grading, draining, surfacing, clearing and grubbing 12.79 mi. State Highway 1, 35,032 cu.yd. borrow, 12,547 cu.yd. roadway excav. and 2,873 cu.yd. solid rock excav., 263.7 cu.yd. 1:2:4 cu.yd. concrete 22,520 lb. reinforcing steel, 26,742 cu.yd. gravel surfacing to be furnished by county, $103,805. R. W. Baker, Big Springs, co. engr.

Tex., Terrell—Oct. 6, by W. P. Williams, judge Kaufman Co. or W. P. Allen, chn. Permanent Bd. Rd. Comrs., grading, clearing, grubbing 21.75 mi. McCoy, Greenville, Elmo, Hiram, Chisholm and Colquett Rds., etc., 9.8 acres clearing, 14.3 acres grubbing, 103,896 cu.yd. earthwork, 25,113 cu.yd. overhaul, $35,000. G. C. Cartwright, Cartwright Bldg., engr.

Okla., Muskogee—Oct 10, Clerk Muskogee Co., grading, draining and graveling 5 mi. road, 15 ft. wide, 24,200 cu.yd. earth excav., 7,700 cu.yd. gravel 350 cu.yd. concrete. $50,000. J. H. Tait, Muskogee, engr.

Utah, Nephi—Oct. 8, by Comrs. Juab Co., gravel surfacing 3½ mi. Silver City-Champlin Rd. E. S. Hoyt, clk.

Wash., Wenatchee — Oct. 8, by Comrs. Chelan Co., surfacing with crushed rock and gravel 7.7 mi. Chelan-Monson Highway. J. Duff, Wenatchee, engr.

Cal., Los Angeles—Oct. 17, by Bd. Supervs. Los Angeles Co., paving and curbing Santa Monica Blvd., concrete and oil macadam.

Que., Montreal—Oct. 1, by Chairman Administrative Comn., 2¼ mi. concrete sidewalks on St. Hubert, Kelly, Wurtole, St. Germain, Monkland and Michaud Aves., $50,000. A. E. Doucet, dir. pub. wks.

BIDS RECEIVED

N. Y., Broklyn — E. Riegelmann, boro pres., Boro Hall, regulating, grading, curbing and paving, etc., (1) Ocean Ave., (2) roadway of Ocean Ave., grading (3) portion of lot on northeast corner of Winthrop St. and Nostrand Ave., regulating and repaving (4) 1st Ave., regulating and curbing (5) west side 7th Ave., from Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (1) $26,571, (2) $26,940; Borough Asphalt Co., 1301 Metropolitan Co., (1) $26,689, (2) $26,714; Cranford Co., 152 9th St., (1) $32,671, (2) $32,625; Grimm Constr. 180 McKinley Ave., (3) $142, (5) $287; H. Skofoe, (3) $171; F. Donovan Trucking & Contg. Co., 614 Union St., (4) $10,226; Greico Bros., 172 Russell St., (4) $10,513; Brooklyn & Manhattan Contg. Corp., 26 Court St., (4) $10,679; L. Mangieri, (5) $331; C. P. Rumpf, (5) $398. Noted Sept. 15.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., regulating and repaving (1) 2nd Ave., (2) Grave St., (3) 5th Ave., (4) East 70th St., (5) East 71st St., regulating, re-regulating and grading, regrading and paving, etc., (6) Haven Ave., from W. J. Fitzgerald, 547 West 45th St., (1) $12,738, (4) $24,476, (5) $33,550.—Casper Helbock Co., Harlem River and 150th St., (1) $13,064.—Uvalde Ashalt Paving Co., 1 Bway., (2) $3,064, (3) $34,739, (4) $24,569, (5) $33,457, (6) $4,959.—Brusstar Constr. Co., Inc., Harlem River and 150th St., (2) $3,089, (3) $47,229, (4) $26,613.—Sicilian Asphalt Paving Co., 41 Park Row, (2) $3,553, (3) $48,151, (4) $26,290.—C. D. Beckwith, Inc., 301 West 108th St., (2) $4,057, (3) $30,700, (4) $25,449, (5) $35,525, (6) $4,818.—Asphalt Constr. Co., 2197 Madison Ave., (3) $30,621, (4) $25,323, (5) $34,194, (6) $4,617. Noted Sept. 15.

Pa., Chester—Paving (1) Crosby St., (2) 8th St., (3) Butler St., (4) Howard St., (5) Hayes St., (6) Ward St. from 2d to 3d Sts., (7) Ward St. from 3d to 4th Sts. from Union Paving Co., 1st Natl. Bank Bldg., (1) $2,999, (2) $3,300, (3) $4,272, (4) $2,049, (5) $2,872, (6) $4,822, (7) $4,188; Barber Asphalt Paving Co., Land Title Bldg., Phila., (1) $3,166, (2) $4,065, (3) $4,960, (4) $2,611, (5) $3,272, (6) $5,276, (7) $4,920; Crossley Paving Co., Chester, (1) $2,979, (2) $3,248, (3) $4,321, (4) $1,921, (5) $2,844, (6) $4,363, (7) $4,236. Noted Sept. 15.

North Carolina—State Highway Dept., at div. office, Charlotte, grading, draining and paving 3.02 mi. State Project 630 A, Gaston Co. from Willard, Boggs & Co., Spartanburg, S. C., $79,329; J. W. Hass, Charlotte, $81,763; W. F. McCanless, Charlotte, $90,474. Noted Sept. 1.

North Carolina—State Highway Dept., at div. office, Asheville, improving (1) 12.98 mi. State Project 545, Graham Co., (a) clearing, grubbing, common and rock excav., corrugated metal pipe, rubble masonry, and topsoiling, (b) rein.-con. bridges and culverts, (2) 12.37 mi. State Project 548, Clay Co., (a) clearing, grubbing, common and rock excav., corrugated metal pipe, topsoiling and rubble masonry, (b) rein.-con. bridges and culverts, (3) 10.33 mi. State Project 534, Cherokee Co., (a) clearing, grubbing, common and rock excav., corrugated metal pipe, gravel surfacing, etc., (b) rein.-con. bridges and culverts, from L. J. Smith Constr. Co., Charlotte, (1a) $144,120, (2a) $76,889, (3a) $66,218; C. M. Dicus, Mill Springs, (1b) $17,144, (3b) $21,824; Gibson Constr. Co., Knoxville, Tenn., (1a) $153,419; O'Brien Constr. Co., Balsam, (1b) $17,590, (2b) $24,570; C. C. McCabe, Tuxedo, (1a) $160,492; Southern Dray Co., Asheville, (1b) $18,153, (3b) $20,974; W. T. Moore Concrete Products Co., Andrews, (2b) $23,515; E. A. Wilson Co., Knoxville, Tenn., (2a) $78,019, (3a) $65,631; R. H. Wright & Son, Asheville, (2a) $81,368; Callahan Constr. Co., Empire Bldg., Knoxville, Tenn., (2b) $25,436; H. A. Wells Constr. Co., Asheville, (3a) $62,080. Noted Sept. 8.

La., Marksville—Avoyelles Parish, 11.75 mi. Bunkie Longbridge Highway, from Rabalais & Williams, Cotton Port, $44,171; Harvey & Fritch, LeCompte, $44,171; C. L. and G. R. Dale Constr. Co., Colfax, $45,153.

O., Euclid—For (1) 43,000 sq.ft. pavement on concrete base, 900 cu.yd. excav. and 4,000 ft. stone curbing and tile drain, etc., (2) laying 1,650 ft. 12-18 in. vitr. sewers in Shoreham Dr., from Baldwin Bros., 4500 Euclid Ave., Cleveland, (1) brick, $24,296; Cleveland Trinidad Paving Co., The Arcade, Cleveland, (1) asphalt, $23,748; A. C. Hattendorf, 13601-6th Ave., East Cleveland, (2) $4,201.

Mich., Detroit—Paving alleys 1378, (1) to 1389, (12) (13) Burnette Ave. from Westfield Ave. to Plymouth Rd., (14) Burnette Ave. from Plymouth Rd. to Grand River Ave., (15) Morrell Ave., (16) Mc-

Streets and Roads (Continued)

Donald Ave., (17) Scovel Pl., from Reading Corp., 413 West Fort St., (1) $7,071, (3) $4,137, (5) $2,724, (6) $2,555, (10) $2,288, (11) $3,887, (12) $3,387; T. E. Currie, 20 McGraw Bldg., (1) $7,089, (3) $4,118, (4) $3,405; A. F. Lester, 309 Sun Bldg., (1) $7,185, (3) $4,215, (4) $3,394, (6) $2,391, (10) $2,237; Otis Cement Constr. Co., 806 Hammond Bldg., (2) $5,007, (5) $2,834, (7) $2,675; Delisle & Cooper, 402 Ford Bldg., (2) $4,969, (7) $2,624, (8) $2,807; F. Porath, Jr., 305 Free Press Bldg., (2) $4,817, (8) $2,807, (11) $3,806; R. J. Powelson Co., 6445 Iroquois Ave., (4) $3,398, (9) $2,654, (11) $3,720; J. Porath, 34 McGraw Bldg., (5) $2,771, (7) $2,653, (12) $3,385; F. H. Davis, 1838 Penobscot Bldg., (6) $2,516, (10) $2,323; G. Nunn, 6409-3rd Ave., (8) $2,741, (12) $3,298; Detroit Asphalt Paving Co., 20 McGraw Bldg., (13) $15,812, (14) $21,607, (15) $17,111, (16) $29,464, (17) $7,388; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (13) $16,289, (14) $22,213, (15) $17,866, (16) $30,915, (17) $7,707. Noted Sept. 8.

Mo., Maplewood—Paving East Yale and West Yale Sts., rein.-con. from C. M. Berry, Webster Groves, $25,103. Noted July 7.

Tex., Edinburg—Hidalgo Co. grading, surfacing and draining (1) 29.62 mi. State Highway 12, 4,092 cu.yd. borrow, 4,225 cu. yd. roadway excav., 56.44 cu.yd. 1:2:4 concrete, 2,108 lb. reinforcing steel, 92,669 cu. yd. caliche surfacing to be furnished by county; (2) 4.3 mi. State Highway 12, 227 sta. road grader work, 13,151.7 cu.yd. gravel surfacing to be furnished by county, from Ganaway & Walker, Edinburg, (1) $158,309, (2) $23,971; Wear & Thomas, Rogers, (1) $167,342, (2) $23,671; W. L. Pearson, Houston, (1) $168,407, (2) $25,291. Noted June 23.

Wash., Seattle—Paving (a) 11th Ave. N. E., et. al., 600,000 cu.yd. clearing and 17,760 sq.yd. 6 in. concrete, (b) 43rd Ave. N. E., et. al, 3,400 cu.yd. earthwork and subgrading and 13,625 sq.yd. 6 in. concrete, (c) concrete walks on 44th Ave. S. W., et. al., 13,000 sq.yd. 2 course concrete, from Olympic Constr. Co., 1326 Northlake Ave., (a) $47,724, (b) $41,337; J. L. Smith, Pioneer Bldg., (b) $38,796, (c) $28,342; Fiorito Bros., New York Blk., (a) $45,226; R. G. Stevenson, 1327 Ewing St., (a) $45,800; D. H. Traphagen, Walker Bldg., (c) $26,950; C. L. Creelman, 1079 25th Ave. N., (c) $28,901.

Cal., Los Angeles—Bd. Pub. Wks. paving and laying curb and gutter on Hoover St. between Manchester and Slauson Aves., $19,290 lin.ft. cement curbing, 95,211 sq.ft. cement sidewalk, 51,089 sq.ft. concrete paving, 541,089 sq.ft. grading, etc., from Tryon & Brain, Tajo Bldg., $174,603; G. H. Oswald, 366 East 58th St., $177,376. Noted Sept. 15.

CONTRACTS AWARDED

Mass., Boston—Paving P. O. Sq., Milk and Congress Sts., granite and wood block, to Coleman Bros., Inc., Medford St., Charlestown, $40,000. Noted Aug. 18.

Rhode Island—State Bd. Pub. Rds., State House, Providence, 4.19 mi. Rocky Brook Rd., 7,390 cu.yd. concrete, 6,000 cu.yd. gravel foundation and 444,000 lb. reinforcing bars, to A. D. Bridges Sons, Inc., Hazardsville, Conn., $149,343. Noted Aug. 11.

N. Y., Brooklyn—E. Riegelmann, boro pres., regulating and curbing, etc., Malta St., to J. J. McKenna, $2,512; regulating and paving Moutrie St., to Brooklyn & Manhattan Contg. Corp., 26 Court St., $13,639; Ave. Y, to F. J. Gallagher, 490 Park Pl., $8,368; regulating and repaving Metropolitan Ave., to Welsh Bros. Contg. Co., 14 Queens St., Astoria, $62,349; Hooper St., to Borough Asphalt Co., 1301 Metropolitan Ave., $2,151; resurfacing Chauncey St., to Cranford Co., 152 9th St., $62,246. Noted Sept. 22.

N. Y., New York—H. Bruckner, pres. Bronx Boro, repaving East Tremont Ave., etc., to Casper-Helbock, Harlem River and 150th St., $40,750; Fox St., to Asphalt Constr. Co., 2197 Madison Ave., $13,674; sewer in Aqueduct Ave., to Slattery Eng. & Contg. Co., 7 East 42d St., $7,441. Noted Sept. 22.

N. J., North Bergen (Weehawken P. O.)—Paving 6 blocks Tonnele Ave. between Secaucus Rd. and Tyler Park, bituminous concrete on concrete base, to J. Lenahan, 540 Main St., Union Hill, 74½ per cent of engineer's estimate ($52,396). Noted Aug. 25.

Pa., Phila.—To United Paving Co., Colonial Trust Bldg., paving Green and 2nd Sts., $14,394, 9th and 23rd Sts., $12,158; Union Paving Co., 37th and Spruce Sts., Cobbs Creek Parkway, $33,912, City Line Ave., $17,600, 24th, Baltz, Harper, Perot and Taylor Aves., $11,690, Hazzard, Huntingdon and Smedley Sts., $11,122; Barber Asphalt Paving Co., Land Title Bldg., 56th St., $14,614, Oregon Ave., $13,054; Fish-Rutherford Inc., Real Estate Trust Bldg., Filbert and 20th Sts., $15,286, Hicks, Mole and Ranstead Sts., $9,481; Eastern Paving Co., Colonial Trust Bldg., Glenwood Ave. and Marlborough St., $18,718, 43rd and 68th Sts., $11,474, Butler, Airdrie, Carey and Phillip Sts., $35,894, Bellmore, Hancock, Norris, Orkney, Orleans and Susquehanna Aves., $31,000; Ryan Constr. Co., Real Estate Trust Bldg., 23rd and 27th Sts., $36,000, 17th St., $20,038, 10th St., $67,419, 6th St., from Vine to South Sts., $60,226, 6th St. from Wharton to South Sts., $19,392; F. T. Buckins, Jr., Kensington and Deal Sts., 25th and 22nd Sts., $33,530, 47th and 50th Sts., $18,826; J. J. McHugh, 1617 Race St., Beaumont and Litchfield Aves., $753, Fisher Ave., $3,956; McLaughlin & Flood, 81st and Suffolk Sts., Frankford Ave., $26,044; T. Connors, 3329 North 5th St., Saul and Pratt Sts., $21,215. Noted Sept. 15.

D. C., Wash.—Dist. Comrs., 509 Dist. Bldg., grading various streets, 23,000 cu. yd., to W. F. Brenizer Co., 101 New York Ave. and G. B. Mullen Co., 1296 Upshur St., N.W. Noted Sept. 22.

D. C., Wash.—Dist. Comrs., 509 Dist. Bldg., paving and resurfacing various streets, to Cranford Paving Co., 2620 E St., N. W., $150,000. Noted Sept. 1.

W. Va., Clarksburg—Paving East Main St., from Monticello Ave. to 2nd St., to A. Fiora, Clarksburg, $27,341.

W. Va., Pineville—Wyoming Co. paving 4 mi. Mullens-Beckley Rd., to H. Lewis & Co., Logan, $70,892.

W. Va., Weston—Lewis Co., grading Hilly Upland Run Rd. in Hackers Creek Dist., to Ferguson Bros., Shinnston, $32,335. Noted Sept. 1.

North Carolina—State Highway Dept., at div. office Charlotte, grading, draining and surfacing 7.88 mi. State Project 587 A, Iredell Co., 29,700 cu.yd. common excav. and borrow, 75 cu.yd. Class B and 23 cu.yd. Class A concrete, 850 ft. 15-24 in. terra cotta pipe, 2,130 lb. reinforcing steel, and 78,590 sq.yd. topeka surfacing on 5 in. concrete base, to Thompson-Caldwell Constr. Co., Statesville, $238,300.

Alabama—State Highway Dept., paving with bituminous concrete 10 mi. Birmingham-Gadsden Highway from Gadsden to St. Clair Co. line, Etowah Co., to County of Etowah, Courthouse, Gadsden, $227,696.

Alabama—State Highway Dept., Montgomery, grading, draining and surfacing with sand-clay or gravel 11.008 mi. road from Butler to Mississippi state line, to J. R. and J. B. Miller, Baconton, Ga. Work involves 96,703 cu.yd. common excav., $.20 per cu.yd. 10,730 cu.yd. gravel 1 mi. haul, $3.15, 9,375 cu.yd. gravel ½ mi. additional haul, $.15, 16,687 cu.yd. sand-clay 1 mi. haul, $.40, 531.3 cu.yd. Class A concrete, $18, 7.63 cu.yd. Class B concrete, $17, total cost $91,348. Noted Sept. 15.

Ala., Pell City—St. Clair Co. gravel surfacing 17½ mi. Goodwater-Ashland Rd., to Stanley & Singer, Lafayette, $159,099.

O., Canton—Paving 1,400 ft. Elgin Ave. N. W. from Tuscarawas St. W. to 7th St. N. W., brick, to Natl. Asphalt Paving Co., 609-611 2d St. N. E., $38,430.

O., Cleveland—Paving Bosworth Rd. and Parkhurst Dr., 8,340 cu.yd. excav., 5,550 sq.yd. asphalt and 4,800 ft. stone curb and tile drain, to Cleveland-Trinidad Paving Co., The Arcade, $68,783. Noted Sept. 8.

O., Cleveland—Paving East 102nd St., 1,450 cu.yd. excav., 35,600 sq.ft. brick on 6 in. concrete base, etc., to Burnett & Hathaway, Society for Savings Bldg., $26,664.

O., Zanesville—Muskingum Co. paving Frazeysburg-Shannon Rd., vitr. brick, to S. M. Billiter, 407 Mer. Lib. Bldg., Cincinnati, $145,490.

Mich., Detroit—Paving Mt. Elliott Ave. 22,000 sq.yd. asphalt on 8 in. concrete base to Detroit Asphalt Paving Co., 20 McGraw Bldg., $150,100.

Mich., Detroit—To T. E. Currie, 20 McGraw Bldg., paving Alley 1340, $8,618, Alley 1344, $4,394, Alley 1346, $3,671, Alley 1349, $2,869, Alley 1358, $3,956, Alley 1360, $3,219; Delisle & Cooper, 402 Ford Bldg., Alley 1341, $4,829, Alley 1342, $4,935, Alley 1347, $3,662, Alley 1348, $3,147, Alley 1353, $2,704; R. J. Powelson Co., 6445 Iroquois Ave., Alley 1343, $5,135; J. Porath, 34 McGraw Bldg., Alley 1345, $4,407, Alley 1361, $3,020, Alley 1362, $3,322, Alley 1365, $2,144; Alley 1367, $1,613; Reading Corp., 413 West Fort St., Alley 1350, $2,590; Alley 1359, $3,639; A. F. Lester, 309 Sun Bldg., Alley 1351, $2,631, Alley 1355, $1,726, Alley 1357, $1,164 Alley 1363, $3,049, Alley 1364, $2,931, Alley 1366, $1,978; F. Porath, Jr., 305 Free Press Bldg., Alley 1352, $2,827; F. H. Davis, 1838 Penobscot Bldg., Alley 1354, $1,977, Alley 1356, $1,628.

Ill., Highland—Paving Arkansas Rd., macadam on concrete base, $26,000. Work will be done by day labor. Noted June 30.

Ill., Rock Island—Resurfacing 19th St., asphalt, to McCarthy Impvt. Co., 220½ Main St., Davenport, Ia., $40,000.

Wis., Milwaukee—Comrs. Pub. Wks. to White Constr. Co., 68 Wisconsin St., paving with asphalt Delaware Ave. from Oklahoma to Estes Aves., $28,370; Pine Ave. from Idaho to Montana Aves., $18,937; F. P. Caughlin Co., 30 North La Salle St., Chicago, Meinecke Ave. from alley block 4 to 48th St., $8,657; Wright St. from alley block 5 to 49th St., $12,605; Badger Constr. Co., 97 Wisconsin St., Cherry St. from 49th to 50th Sts., $4,537; 5th St. from Center to Wright Sts., $27,220; Clayton Constr. Co., 397 Farwell Ave., 7 concrete alleys, $11,999; Cutler Constr. Co., 886 46th St., 3 alleys, $4,209; R. H. Gumz, 831 13th Ave., 2 alleys, $4,987; Boderman Constr. Co., 801 Winnebago St., 1 alley, $2,484.

Ia., Des Moines—Paving West 5th St., to J. Horrabin & Co., 1422 Walnut St., $25,000. Noted Aug. 5.

Ia., Forest City—Winnebago Co. paving Primary Rd. 2, Federal Aid Project 30, concrete, to H. Marvil, Lake Mills, $28,000.

Ia., Hampton—Franklin Co. gravel surfacing 9.84 mi. road, Federal Aid Project 105, from Coulter east through here, 14,884 cu.yd. excav., to Miller Constr. Co., Sioux City, $0.38 per cu.yd., gravel, load, haul one mile and spread, 49,125 additional units half mile haul, $0.10; various sections county road system, to Northern Road Constr. Co., Minneapolis, Minn., 4,900 cu.yd. gravel, load, haul, one mile and spread, $0.35, 7,350 cu.yd. at $0.40, 27,300 units additional half mile haul, $0.09, 10,500 at $0.14, 18,900 at $0.11; C. Fox and C. J. Thraves, Hampton, 4,300 cu.yd. gravel, one mile haul, $0.41, 17,400 units gravel additional, half mile haul, $0.125; F. Petrie, Popejoy, 2,600 cu.yd. gravel, one mile haul, $0.25, 12,400 units additional, half mile haul, $0.12.

Ia., Iowa City—Paving alley, brick on 6 in. concrete base, to W. Horrabin Contg. Co., 15 East College St., $25,000. Noted July 14.

Ia., Onawa—Monona Co., grading 5.11 mi. Turin-Soldier Rd. and 5.64 mi. Sioux City-Denison Cutoff, from Crawford Co. Line west and north, Primary Rd. Project 38, 136,326 cu.yd. earth excav., to C. F. Betz, Sioux City, 53,281 cu.yd. at $0.184; H. A. Mossman, Lyons, Neb., 83,045 cu.yd. at $0.1925. Noted Sept. 8.

Ia., Rock Rapids—Lyon Co. grading 16.19 mi. roads, Primary Rd. Project 85, through Doon and here, to Minnesota State Line, 148,733 cu.yd. excav., to I. Cox, 727 South 6th Ave., Sioux Falls, S. D., $0.205; gravel surfacing 23 mi. road, Primary Rd. Project 174, from Lester east to Osceola Co. Line, 34,500 cu.yd. gravel, to Miller Constr. Co., Sioux City, $0.395. Noted Sept. 8.

Kan., Junction City—Geary Co. resurfacing and widening 0.6 mi. Golden Belt Rd., Federal Aid Project 91, brick, to Howell & Wagoner, Junction City, $28,667;

Streets and Roads (Continued)

0.7 mi. East 6th St., 18 ft. wide, concrete, to Zeigler & Dalton, Junction City, $26,802. Noted Sept. 1.

Kan., Osawatomie—Improving various streets, to A. B. Ferguson, Osawatomie, $25,575.

Kan., Ottawa—Franklin Co. 1.667 mi. Project 89 one course bituminous concrete, to Cook & Stucker, Ottawa, $25,000. Noted Aug. 18.

Kan., Yates Center — Improving State, Main, Green and Kansas Sts., to J. K. Shinn, Independence, $54,228.

Mo., St. Joseph—Paving 10th St., concrete, to Casteel Eng. & Constr. Co., Ballinger Bldg., $29,222. Noted Sept. 22.

Tex., Austin—Paving ½ mi. 13th, 10th, 1st, Brazos and Colorado Sts., 1,707 sq.yd. concrete alleys, 13,633 sq.yd. Uvalde rock asphalt on 5 in. concrete base, to W. E. Dozier, 230 Austin Natl. Bank Bldg., Austin, $30,083.

Tex., Greenville—Hunt Co. 3.7 mi. Highway 39, waterbound macadam, inverted penetration topping, $86,554. Work will be done by day labor.

Tex., Groesbeck—Limestone Co. gravel surfacing 4 mi. State Highway 7, to L. D. Roan, Cooledge, $45,101 including 10% for engineering and contingencies and material furnished by county. Noted Sept. 22.

Tex., Linden—Cass Co. grading, gravel surfacing and draining 13.01 mi. State Highway 1, to C. W. Burgess, 710 Haines Ave., Dallas, $63,002. Noted Sept. 22.

Tex., Quitman—Wood Co. gravel surfacing 14.49 mi. Highway 37, to Purvius, Lowery & Hanks, Ft. Worth, $28,414. Noted Sept. 15.

Tex., San Augustine—San Augustine Co. grading, gravel surfacing and draining 20.95 mi. State Highway 21, 82,726 cu.yd. borrow, 134,158 cu.yd. roadway and 14,476 cu.yd. solid rock excav., 899.79 cu.yd. Class A concrete, 23,756 cuyd. gravel surfacing, to McClung Constr. Co., c/o G. A. McClung, Cleburne, $157,242. Noted July 14.

Col., Ft. Collins—Concrete paving Howe St. from Laurel to Laporte Sts., and from Howe to Mason Sts., to Brodie & Anderson, 609 Interstate Trust Bldg., Denver, $89,861.

Utah—State Highway Comn., Salt Lake City, improving 2.1 mi. Tremonton-Garland Highway, 2 in. bitulithic on 6 in. concrete, to Gibbons & Reed, Kearns Bldg., Salt Lake City; labor for improving 1.83 mi. Provo-Pleasant Rd., to Gray & Murdock, Dooley Blk., Salt Lake City, $24,735, material furnished by state.

Utah, Springville—Utah Co. (Provo), concrete paving approximately 2 mi. streets through here, to R. Ely, Springville $69,423. Cement to be purchased separately.

Arizona—State Highway Dept., Phoenix, grading and gravel surfacing 9.6 mi. Holbrook-St. Johns Highway, Federal Aid Project 6, Sect. 4-B, Schedules 1 and 2, to Hamlin & Garcia, Hunt, $8,585 and $6,326 respectively; Schedule 3, to Udall & Morgan, Hunt, $9,648.

Wash., Seattle — King Co. grading and graveling 4.5 mi. Maple Leaf Rd. and Extension Rd. 6, to Schacht Constr. Co., 219 Occidental Ave., $57,209. Noted Aug. 18.

Wash., Spokane—Paving various streets, to G. H. Weller, North 618 Madelia St., $48,376.

Cal., Fresno—Fresno Co. grading and gravel surfacing Highway Route 1, Sect. C part 1 and Route 1, Sect. C part 2, to G. S. Benson & Sons, 247 Douglas Bldg., Los Angeles, $101,960 and $80,550 respectively.

Cal., Los Angeles—Paving Norton Ave. between Welshire Blvd. and Pico St., to W. Liddington, 420 East 60th St., $65,857. Noted Sept. 1.

Cal., Santa Ana—Orange Co. paving La Mirada Brea-Olinda Rd. and 4 streets, 2 and 4 in. asphaltic concrete, to S. Finley, Santa Ana, $58,261; 3 mi. Rd., Dist. 7, 5,000 cu.yd. gravel, 5,000 cu.yd. earth excav. and 267,428 sq.ft. 5 in. asphaltic concrete, to Fairchild-Gilmore-Wilton Co., Los Angeles Ry. Bldg., Los Angeles, $55,000.

Que., Montreal — Paving 3,000 ft. St. James St. from McGill to Inspector Sts., asphalt, $26,300. Work will be done by day labor.

Ont., Toronto—York Twp., concrete sidewalks on Cryessa, Mildred and Rutherford Aves., to Natl. Contg. Co., 9 Garnock Ave., $125,500; Amherst Ave., F. Angotti, 819 St. Clarens Ave., $2,200; Bronston Ave., Britnell Contg. Co., Baxter Ave., $8,000; Durie St. and Harvie Ave., Grant Contg. Co., 50 Front St. E., $5,000; Dynover Rd. and Robiner Ave., J. Harrop, 1414 Davenport Rd., $9,400; Franklin and Glenholme Aves., A. J. Pemberty, 292 Booth Ave., $7,000; Milverton Blvd. Frater and Guestholme Aves., W. B. Hughes, 53 Victoria Park Ave., $7 100; Holborne and Salmon Aves., A. Johnson, 35 Burgess Ave., $5,000; Nairn and McMichael Aves., D. McKay & Co., 289 Ashdale Ave., $4,700; Rushton Rd., Ramsay Contg. Co., 39 Indian Rd., $2,500.

Ont., Whitby—For ¼ mi. 40 ft. bithulithic pavement on Brock St. from Mary to Dunlap Sts., to Warren Bituminous Paving Co., 54 University Ave., Toronto; storm sewers to Curran M. Briggs, 51 Rushholme Park Crescent, Toronto. Total $35,000.

Industrial Works

PROPOSED WORK

Mass., Winthrop — H. Standard, 43 Tremont St., Boston, plans 1 story, brick and steel garage on Somerset Ave., here. $50,000. Private plans.

Conn., Hartford—Buck & Sheldon, archts. and engrs., 60 Prospect St. opens bids about Oct. 3, one story, 100 x 110 ft., brick and timber plant, rein.-con. flooring, plain foundation, Franklin Ave., for R. S. Peck & Co., 26 High St.

Conn., Hartford—G. A. Zunner, archt., 182 High St., rejected bids opened Sept. 15, 3 story, 95 x 100 ft., brick and rein.-concrete garage on Windsor Ave. Dragat & Traubman, 340 Windsor Ave., $100,000. Project postponed until spring. Noted Sept. 8.

Conn., New Britain — Lash Motor Co., Lincoln and West Main Sts., plans 3 story, rein.-con. garage, sales and service station, Main St. $50,000.

N. Y., Buffalo—J. N. Matthews Co., Washington and Exchange Sts., had plans prepared, 3 story, 100 x 150 ft. publishing house, rein.-con. and brick, rein.-con. flooring, concrete foundation, Oak St. Cost to exceed $200,000. R. J. Reidpath & Son, Mutual Life Bldg., engr. Noted Feb. 24.

Pa., McKees Rocks—W. L. Singer Ice Co. had plans prepared by A. C. Bishop & Co., engrs. and archts., 427 Guardian Bldg., Cleveland, O., 1 story, 50 x 60 ft., brick and stone plant, rein.-con. flooring, plain foundation. $60,000.

D. C., Wash.—Storm & Sherwood, 3247 Q St., having plans prepared by W. H. Tinn, Terry Bldg., Phila., Pa., for dairy, brick, concrete and steel. $85,000.

D. C., Wash.—Wise Bros., 3206 N. St., N.W., having plans prepared by A. P. Clark, Jr., archt., 816 14th St., dairy plant addition. $75,000.

N. C., Goldsboro—State Hospital for Insane plans power house, including equipment, here. $100,000. H. A. Underwood, 227 Forest Rd., Raleigh, engr.

O., Canton—Schory & Schellhase Co., 6th St. and Harrison Ave., S.W., takes bids this fall, 2 story, 60 x 200 ft. ice plant. $250,000.

O., Cleveland—Carris-Franklin Sales Co., 3622 Prospect Ave., having plans prepared by Carter-Richards Griffith Co., archts., Illuminating Bldg., 1 story, 100 x 140 ft. brick garage, plain foundation. $60,000. Noted Aug. 25.

Ill., Granite City—Cabaret Range Co. having plans prepared by C. Pauley & Son, archts., 19th and C Sts., 4 brick and steel buildings, 24 x 70 ft., 70 x 100 ft. and two 70 x 300 ft. $300,000. Noted Sept. 22.

Ill., Peoria—Peoria Sheet Metal Co., c/o J. Fried, 2815 Main St., plans 1 story factory, brick and steel. $50,000. Architect not selected.

Wis., Appleton Jct.—Traas Candy Co., 715 College Ave., Appleton, having plans prepared by W. Sindahl, archt., Neenah, 2 story, 45 x 100 ft. factory, brick and concrete, rein.-con. flooring, plain foundation. $50,000. Noted Aug. 25.

Wis., Fond du Lac—Galloway West Co., 24 West Division St., having preliminary plans prepared by M. Tullgren & Sons, archts., 425 East Water St., Milwaukee, 3 or 4 story, 64 x 160 ft. cold storage warehouse, brick and concrete, or mill construction, plain foundation, West Division St., $75,000.

Wis., Jefferson—Adco Dry Storage Battery Co. plans 2 and 4 story, 60 x 200 ft. factory, rein.-con., brick and steel, rein.-con. flooring, brick foundation. $100,000. Architect not selected.

Wis., Kilburn—D. A. Colby plans 2 story, 60 x 95 ft. garage, rein.-con., brick and steel, rein.-con. flooring, brick foundation, Bway. $45,000. Architect not selected.

Wis., Milwaukee—Dort Motor Co., 242 4th St., having plans prepared by A. C. Eschweiler, archt., 141 Wisconsin St., 1 story, 120 x 120 ft. garage, brick and concrete, rein.-con. flooring, plain foundation, Mason St. $42,000.

Wis., Milwaukee—Smith Eng. Wks., 1154 32nd St., 1 story, 75 x 100 ft., assembling plant, brick and timber, plain foundation, 32nd St., to Worden-Allen Co., Port Washington Rd., $40,000.

Wis., Milwaukee — J. Wollage Co., 417 Wells St., having plans prepared by M. Fernekes, archt., 97 Wisconsin St., 4 story, 90 x 120 ft., rein.-con. and brick garage, rein.-con. flooring, plain foundation, 28th and Grand Aves. $95,000.

Wis., Neenah—Valley Paper Mills, East Wisconsin Ave., will take bids about Oct. 15, 1 and 2 story, 80 x 550 ft. main building, 1 story, 60 x 165 ft. power plant and 1 story filtration plant, brick and steel, rein.-con. flooring, plain foundation. $800,000. E. A. Wettengel, 578 Pierce Ave., Appleton, archt.

Wis., Nelsonville—H. J. Kaukrud having plans prepared for 2 story, 48 x 180 ft. saw mill, rein.-con. and brick, rein.-con. flooring, brick foundation, $55,000. Private plans.

Kan., Coffeyville—F. R. Lawson, Nowata, Okla., having plans prepared 2 story ice plant, brick and steel, here. $100,000. Architect's name withheld.

Tex., Cameron—See "Sewers."

Col., Denver — Hardesty Mfg. Co., 1833 Market St., had plans prepared by C. S. Lambie, engr., Tramway Bldg., 100 x 160 ft. and 120 x 160 ft. factory additions, 30th and Blake Sts. Cost between $75,000 and $100,000.

Cal., Los Angeles—Premier Fireproof Storage Co., having plans prepared by E. T. Flaherty, archt., 435 I. W. Hellman Bldg., 6 story, 60 x 100 ft. warehouse, rein.-con., brick, terra cotta and tile, concrete flooring, Santa Monica Blvd. $100,000.

Cal., Los Angeles—Wilshire Fireproof Storage Co., c/o E. T. Flaherty, archt., 435 I. W. Hellman Bldg., plans 8 story, 60 x 100 ft. warehouse, rein.-con., terra cotta and pressed brick, 1st St. and Western Ave., $150,000.

Que., Montreal—J. J. Joubert, Ltd., St. Andre St., plans 2 story, 50 x 80 ft. ice plant, brick and steel, on St. Andre St. $40,000. Private plans.

Que., Montreal—Molsons Brewery, 906 Notre Dame St., E., plans 6 story, 91 x 124 ft. brewery on Notre Dame St. E. $119,000.

Ont., Parry Sound—Conger Lumber Co. plans lumber mills. $60,000.

BIDS DESIRED

R. I., Providence—W. R. Walker & Son, archts., 49 Weybosset St., receiving bids 2 story, 50 x 76 ft., brick and timber factory, plain foundation, on South Water and Coin Sts., for C. S. Tanner Co., 250 South Water St. $40,000.

Mass., Adams—Renfrew Mfg. Co., receiving bids, 1 and 2 story, 83 x 107 ft., storage, picker and office building, rein.-

Industrial Works (Continued)

concrete and brick concrete foundation. $75,000. A. F. Gray, 53 State St., Boston, archt.

Pa., Coatesville—S. Wagner, archt., Reading Terminal, Phila., receiving bids 1 story, 30 x 195 ft. freight house, and 2 story, 22 x 40 ft. and 30 x 90 ft. office building, brick and steel, rein.-con. flooring, here, for Philadelphia & Reading R.R., Reading Terminal, Phila., $175,000.

O., Cleveland—Sobel & Elder, 416 Guardian Bldg., receiving bids 1 story, 100 x 100 ft., brick and steel garage and commercial building, plain foundation, 2719 East 55th St. $50,000. E. A. Curtiss, 605 Republic Bldg., archt.

Wis., Little Chute—Lenz Electric & Auto Co., Little Chute, and W. W. DeLong, archts., 842 College Ave., Appleton, receiving bids 1 and 2 story, 60 x 100 ft. garage, rein.-con., brick and tile, rein.-con. flooring, brick foundation. $40,000.

Okla., Oklahoma City—Oct. 4, by P. H. Anthony, archt., Waldheim Bldg., Kansas City, Mo., 2 story, 100 x 150 ft. bakery, for Smith Baking Co., 437 West Park St. $150,000. Noted Sept. 15.

CONTRACTS AWARDED

Me., Richmond—Damariscotta Leather Co., 3 story, 65 x 201 ft. timber mill, concrete foundation. Work will be done by day labor.

Mass., Malden—Potter Bros., 2 story, 80 x 115 ft., brick and concrete garage and service station, rein.-con. flooring, concrete foundation, Main St., to W. M. Bailey Co., 88 Broad St., Boston. $100,000.

Mass., Waltham—Elastoid Fibre Co., 1 story, 72 x 181 ft. brick factory, concrete foundation, to H. P. Cummings Co., Ware. $60,000.

Conn., Middletown—C. J. Masin, 545 Main St., 1 story, 100 x 120 ft., brick and steel garage, sales and service station, rein.-con. flooring, plain foundation, Main St., to H. S. Moore, 622 High St. and O. E. Larson, 64 Wyllys Ave. $40,000.

Pa., Phila.—For 1 story, 160 x 220 ft. repair shop on 29th and Cambria Sts., to Robbins Constr. Co., 1137 North Front St., $115,000.

Pa., Phila.—S. W. Evans & Co., 4623 Paul St., rein.-con. brick and steel addition to factory, rein.-con. flooring, concrete foundation, Paul and Meadow Sts., to W. Steele & Son, 15th and Arch Sts., $50,000.

Pa., Pottsville—P. Greenberg, Shenandoah, 3 story, 70 x 103 ft. rein.-con., brick and steel factory, rein.-con. flooring, concrete foundation, on Railroad Ave., here, to Pringle-Borthwick, 8018 Germantown Ave., Phila., $80,000.

O., Cleveland—Cleveland Electric Illuminating Co., Illuminating Bldg., 2 story, 26 x 55 ft., brick, steel and concrete addition to sub-station, rein.con. flooring, plain foundation, East 17th St., to Hunkin-Conkey Constr. Co., Century Bldg. $50,000. Noted Sept. 22.

O., Cleveland—Chicago Roller Co., 554 Harrison St., Chicago, 2 story, 50 x 92 ft., brick and steel factory, plain foundation, 1432 Hamilton Ave., here, to W. I. Thompson & Son Co., 5103 Euclid Ave., $40,000.

O., Cleveland—Coolee Co., c/o E. A. Markham, Euclid Ave. and 105th St., 1 and 2 story, 39 x 102 ft., brick and steel factory, plain foundation, 4516 Superior Ave., to M. Narosni, 12617 Edmonton Ave., $40,000.

O., Cleveland—J. L. Free Land Co., 1004 Prospect Ave., 1 story, 40 x 78 ft. brick and steel garage, plain foundation, 4917 Prospect Ave., to Austin Co., 16112 Euclid Ave., $40,000.

O., Cleveland—Greenline Garage & Supply Co., 4214 West 25th St., 1 story, 43 x 89 ft., brick garage, plain foundation, Memphis Ave., to Myers & Loeb, 262 Hippodrome Bldg., $40,000.

O., Cleveland—Rail Welding & Bonding Co., 2400 Woodland Ave., 1 story, 90 x 180 ft. brick and steel factory, plain foundation, 2400 Woodland Ave., to Austin Co., 16112 Euclid Ave., $60,000.

O., Cleveland — Vlchek Tool Co., 3000 East 87st St., 1 story, 40 x 50 ft., brick, steel and concrete factory, rein.-con. flooring, plain foundation, East 87th St., to Hunkin-Conkey Constr. Co., Century B'dg., $50,000.

O., Lakewood (Cleveland P. O.)—City Ice & Fuel Co., East 22nd St., Cleveland, 1 story plant, 50 ft. high, brick and steel, Fisher and Warren Rds., here, to Younger & Farmer, 1670 Crawford Rd., Cleveland, $100,000.

O., Youngstown—Distilled Water Ice Co., 523 West Federal St., 1 story, 70 x 160 ft., brick, steel and concrete plant, rein.-con. flooring, plain foundation, Federal St., to Heller Bros., Furnace St. $100,000.

Mich., Iron Mountain—Michigan Land & Lumber Co., subsidiary of Ford Motor Co., Highland Park, Detroit, 1 story, 120 x 300 ft. brick and steel plant, plain foundation, to Worden-Allen Co., 208 South La Salle Ave., Chicago.

Ill., Dixon—Dixon Mfg. Co., 1 story, 52 x 192 ft. concrete and steel factory, to Truscon Steel Co., 22 West Monroe St., Chicago, $75,000.

Ill., Waukegan—J. P. Heath & Co., 2 story, 100 x 108 ft. machine shop, brick and steel, to Manufacturing Terminal Co., Waukegan, $100,000.

Wis., Milwaukee—S. D. Austin, 307 Grand Ave., 1 story, 90 x 120 ft. garage, brick and concrete, rein.-con. flooring, plain foundation, Oakland Ave., to G. E. Kahn, 114 Grand Ave., $45,000.

Wis., Milwaukee—Holeproof Hosiery Co., 41 4th St., 3 story, 58 x 150 ft. brick and timber factory, plain foundation, 30th St., to W. W. Oeflein, 86 Michigan St., $100,000.

Wis., Oshkosh—R. Lutz, 1270 Knapp St., 2 story, 40 x 80 ft. garage, brick and concrete, rein.-con. flooring, plain foundation. $40,000. Owner will build by day labor. Auler & Jensen, F. R. A. Bldg., archts.
S & R—

Wis., Oshkosh—Oshkosh Tractor Co., c/o A. S. Paine, 22 New York Ave., 1 story, 150 x 375 ft. factory, rein.-con., steel and brick, rein.-con. flooring, brick foundation, Main St., to A. Nielson & Sons Co., Neenah, $170,000. Noted Sept. 22.

Wis., Racine — Harvey Springs & Forge Co., 17th and Murray Aves., 2 story, 58 x 60 ft. rein.-con. and brick factory, rein.-con. flooring, concrete foundation, to Nelson & Co., Inc., Janes Blk., $40,000. Noted Sept. 8.

Wis., Racine—Horlicks Malted Milk Co., Horlicksville, 42 x 56 ft. warehouse, 105 ft. high, rein.-con., rein.-con. flooring, plain foundation, Northwestern Ave., to MacDonald Eng. Co., 53 West Jackson Blvd., Chicago, $55,000.

Wis., Racine—West Racine Garage & Implement Co., 3218 Washington Ave., 1 story, 60 x 90 ft. garage, rein.-con. steel and brick, rein.-con. flooring, brick foundation, Washington St., to J. Sorenson, 1805 West 6th St., $40,000.

Wis., Saukville—A. Horn, 1 and 2 story, 65 x 110 ft. garage, etc., rein.-con., steel and brick, rein.-con. flooring, concrete foundation, Main St., to W. Opperman, Saukville, $40,000. Noted Sept. 22.

Mo., St. Louis — Plymouth Garage Co., 5909 Plymouth St., 1 story, 75 x 80 ft., brick and steel garage, Plymouth and Hamilton Sts., to T. H. Ratz, 917 Pine St. $50,000. Noted Sept. 15.

Tex., Dallas—Dallas Tent & Awning Co., 2620 Main St., 3 story, 100 x 100 ft., brick factory, Race and Commerce Sts., to Inge Constr. Co., Southwestern Life Bldg, $45,000.

Cal., Los Angeles—Keeler-Comey Co., c/o G. W. Eldredge, archt., 226 Pacific Finance Bldg., 2 story, 125 x 240 ft., rein.-con., tile and steel factory, on San Pedro St., to W. A. Heitman Co., Merritt Bldg., $600,000.

Que., Montreal—Dominion Oxygen Co., Burgess St., 1 story, 82 x 101 ft. plant on Liber and Burgess Sts., to J. Shearer & Sons, Shearer St. $40,000.

Buildings

PROPOSED WORK

Mass., Belchertown—High School—School Com. plans 2 story, fireproof. $150,000.

Mass., Dorchester — Church — St. Paul Roman Catholic Congregation, 1 Lingard St., had plans prepared by Maginnis & Walsh, archts., 100 Boylston St., Boston, 1 story, 105 x 170 ft., stone, on Hartford St. $150,000.

Mass., Everett—School—Bd. Educ having plans prepared by J. C. Spofford, archt., 36 Bromfield St., Boston, 2 story, brick, concrete foundation, $150,000.

R. I., Pawtucket — School — Bd. Educ. plans 3 story, concrete, brick and steel, rein.-con. flooring, plain foundation, Fountain St. $1,200,000. Architect not selected.

Conn., Bridgeport — Parish Hall—J. W. Skinner, archt., 1188 Main St., opens bids about Oct. 1, two story, 45 x 125 ft., brick, stone and steel, plain foundation, Main St., for Olivet Congregational Church, 2140 Main St. Noted Sept. 8.

Conn., Fairfield—Theatre, Store, etc.—J. I. Flint, Town Hall Bldg., having plans prepared by O. C. S. Ziroli, archt., 211 State St., Bridgeport, 2 story, 65 x 115 ft., brick, hollow tile and steel, Post Rd.

Conn., New Haven—Library—Yale University plans stone and concrete on Campus. $2,000,000. J. R. Angell, pres.

Conn., New Haven—Museum—Yale University having plans prepared by Day & Klauder, archts., 925 Chestnut St., Phila., 2 story, stone and steel, on Campus. $750,000. J. R. Angell, pres.

N. Y., Brooklyn — Municipal — Plans 13 story, 170 x 270 ft., brick, steel and stone, concrete pile foundation, at Boro Hall. $6,000,000. Private plans.

N. Y., New York — Apartment — M. J. Kramer, 309 5th Ave., having plans prepared by H. J. Krapp, archt. and engr., 116 East 16th St., 6 story, brick, steel and stone, concrete pile foundation, Hamilton Pl. $750,000.

N. Y., New York—Office—Equitable Life Assurance Co., 120 Bway., plans brick, steel and stone, concrete pile foundation, 7th Ave. between 31st and 32nd Sts. $1,000,000.

N. J., Elizabeth — Clubhouse — King & Campbell, archts. and engrs., 38 West 40th St., New York, opens bids about Oct. 10, 2 story, brick and stone addition, brick foundation, here, for B. P. O. E.; 211 Broad St. $150,000. Noted April 7.

Pa., Altoona—Church—Fairview Methodist Church plans 2 story, 70 x 115 ft., brick and stone, 5th St. and 23d Ave. $150,000. A. L. Bixler, 2210 5th Ave., pastor. Architect not selected.

Pa., Drexel Hill—Apartment—E. H. Wanamaker, Drexel Hill, had plans prepared 3 story, 45 x 138 ft. brick and stone. $200,000. Private plans.

Pa., Tamaqua—Temple—Masonic Assn. will soon take bids, 3 story, 46 x 120 ft., concrete, brick and steel. $175,000. B. R. Stevens, 1737 Filbert St., Phila., archt.

D. C., Wash.—Apartment—P. M. Julian, archt., Commercial Natl. Bank Bldg., preparing plans for apartment. $600,000. Owner's name withheld.

D. C., Wash.—Apartment—M. G. Lepley, archt., 1402 Eye St., N. W., preparing plans apartment house, $150,000. Owner's name withheld.

Ala., Birmingham—Auditorium—Having plans prepared by Miller & Martin, archts., 1900 14th Ave., 140 x 160 ft., 8th Ave. N. between 19th and 20th Sts. $425,000.

Ala., Birmingham — School—J. R. Hornady, comr. Bd. Educ., soon takes bids 2 story, 32 x 100 ft., 19th St. $130,000. D. O. Whilden, Title Bldg., archt.

Tenn., Memphis—Office—R. B. Snowden, 1397 Center Ave., had plans prepared by Hanker & Cairns, archts., Scimitar Bldg., 21 story, 75 x 75 ft., steel and white terra cotta, rein.-con. flooring, Court St. and Maiden Lane. $1,000,000.

O., Columbus — Office — Amer. Insurance Union, 44-50 West Broad St., had plans prepared by F. L. Packard, archt., New Hayden Bldg., 25 story, 123 x 187 ft., East Broad St. Cost between $3,000,000 and $3,500,000.

Buildings (Continued)

O., Hiram — Dormitory and Science — Hiram College soon lets contract 3 story, 42 x 108 ft., brick, steel and concrete, rein.-con. flooring, plain foundation. $150,00. A. Garfield, Natl. City Bldg., Cleveland, archt. Noted Aug. 25.

O., Mansfield — Bank — Citizens Natl. Bank, 34 North Main St., had plans prepared by E. B. Caldwell, archt., 1st Natl. Bank Bldg., Bridgeport, Conn., and will probably receive bids in spring, 10 story, 50 x 110 ft., brick, steel and stone. $500,000.

O., Painesville—High School—Bd. Educ. having plans prepared by F. L. Packard, archt., New Hayden Bldg., Columbus, 2 story, brick, steel and concrete, rein.-con. flooring, plain foundation, $350,000.

O., Port Clinton—School—Bd. Educ. having plans prepared by Thayer & Johnson, archts., 5716 Euclid Ave., Cleveland, 2 story, 18 room, brick, steel and concrete, rein.-con. flooring, plain foundation. $150,000.

Mich., Ann Arbor — Library — W. L. Clements having plans prepared by A. Kahn, archt., 1000 Marquette Bldg., Detroit, 2 story, 95 x 100 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, South University Ave. $200,000.

Mich., Detroit—Amusement—L. Kamper, archt., 752 Book Bldg., preparing plans for 2 story, 118 x 175 ft., brick, steel and stucco, East Jefferson Ave. $150,000. Owner's name withheld.

Mich., Wakefield — Memorial — For 2 story, 75 x 240 ft. concrete and brick, rein.-con. flooring, plain foundation, to Albinson Constr. Co., 717 Nicollet Ave., Minneapolis, Minn., $245,000 cost plus percentage basis.

Ill., Green Valley — High School — Bd. Educ., c/o W. A. Kiefer, pres., having plans prepared, brick, steel and stone, rein.-con. flooring. $150,000. Architect's name withheld.

Ill., Rockford — Church — Emanuel Lutheran Congregation having plans prepared by Peterson & Johnson, archts., Swedish Amer. Bank Bldg., 1 story, 60 x 132 ft., brick and stone, steel trusses, $150,000.

Wis., Baraboo—Bank and Office—Bank of Baraboo having tentative sketches made by Clas, Shepard & Clas, archts., 445 Milwaukee St., Milwaukee, 2 story, 45 x 90 ft., stone, concrete and brick, rein.-con. flooring, plain foundation. Cost between $100,000 and $150,000.

Wis., Beaver Dam — High School — Bd. Educ., c/o A. W. Lueck, chn., plans 4 story, 60 x 210 ft., rein.-con. and brick, rein.-con. flooring, brick foundation, Main St. $300,000. Architect not selected.

Wis., Clear Lake—High School—Joint Dist. 1 will take bids about Oct. 15, 2 story, 54 x 100 ft. brick and concrete, rein.-con. flooring, plain foundation. Cost between $100,000 and $150,000. F. J. Anderholn, clk. W. L. Alban, 347 Endicott Bldg., St. Paul, Minn., archt.

Wis., Dousman — Home — A. D. Koch, archt., 120 Wisconsin St., Milwaukee, will open bids about Oct. 1, two story, 100 x 200 ft., brick and concrete, rein.-con. flooring, plain foundation, for Wisconsin Masonic Home Assn., c/o A. E. Matheson, 624 St. Lawrence Ave., Janesville, chn. building com. $250,000. Noted Aug. 18.

Wis., Green Bay—Vocational School—Bd. Educ. plans 4 story, 150 x 200 ft. rein.-con., steel and brick, rein.-con. flooring, brick foundation. Cost between $250,000 and $300,000. Architect not selected.

Wis., Manitowoc—Store and Office—Deck Bros., 806 Buffalo St., having plans prepared by Smith & Reynolds, archts., Dempsey Bldg., 2 story, 50 x 153 ft., rein.-con., steel and brick, rein.-con. flooring, brick foundation, 8th St. $150,000.

Wis., Medford—Hospital—Landers Post Amer. Legion, c/o S. D. Gibson, commander, plans 4 story, 60 x 150 ft., rein.-con. and brick, rein.-con. flooring, brick foundation. $150,000. Architect not selected.

Wis., Milwaukee — Lodge — Owl Realty Co., 67 Keefe Ave., having preliminary plans prepared by A. D. Koch, archt., 120 Wisconsin St., 2 story, brick and concrete, rein.-con. flooring, plain foundation, Port Washington St. $150,000.

Wis., Milwaukee—Office—Zinger & Braun, 548 12th St., having revised plans prepared by Backes & Pfaller, archts., 216 West Water St., 2 story, 100 x 150 ft., rein.-con. and brick, rein.-con. flooring, plain foundation, 6th St. $150,000.

Kan., Chanute—Hotel—L. D. Johnson, chn. of stock company, having plans prepared by A. T. Simmons, archt., Bloomington, Ill., 5 story, 75 x 90 ft., brick, steel and rein.-con. $235,000.

Kan., Liberal—High School—Bd. Educ. having plans prepared by Smith & English, archts., Hutchinson, 3 story, brick, stone and rein.-con., $160,000.

Kan., Parsons—City and Convention Hall—Plans 2 story, brick, steel or rein.-con. $150,000. F. W. Frye, clk. Architect not selected.

Kan., Peabody—High School—Bd. Educ. having plans prepared by Mann & Gerow, archts., Hutchinson, 2 story, brick, stone and rein.-con. $150,000.

Kan., Wichita — Hotel — G. H. Siedhoff 1st and Market Sts., having plans prepared by E. Forsblom, archt., Sedgwick Bldg., 6 story, 80 x 260 ft., brick, stone and rein.-con., Douglas and Waco Aves. $500,000.

Kan., Winfield — Hospital — Stock Company, c/o Secretary Chamber Commerce, plans 3 story, brick, stone, rein.-con. and steel. $250,000. Architect not selected.

Neb., McCook—Hospital—St. , Patricks Roman Catholic Church having plans prepared by Archer & Gloyd, archts., Reliance Bldg., Kansas City, Mo., 3 story, 40 x 112 ft., rein.-con., brick and stone, $150,000.

Neb., Omaha—Apartment—R. Renwick, 206 North 49th St., having plans prepared 3 story, 130 x 130 ft., rein.-con. and brick, at 115 Dundee St, $175,000. Architect's name withheld.

Neb., Papillion—Court House—Sarpy Co. having plans prepared by W. F. Gernandt, archt., Keeline Bldg., Omaha, 3 story, 64 x 93 ft., rein.-con., brick and stone, $150,000. Noted June 30.

Tex., Texline—High School—Bd. Educ. having plans prepared by Eads & McClure, archts., Chickasha, Okla., 2 story, brick, stone and rein.-con., $160,000.

Okla., Okeene—Church—Roman Catholic Church, c/o J. Francis, having plans prepared by Monett & Reid, archts., Empire Bldg., Oklahoma City, 2 story, 58 x 130 ft., rein.-con., brick, stone and steel. $150,000.

Okla., Oklahoma City — Apartment — Stock Co., c/o J. L. Dickey, 1108 West 33rd St., having plans prepared by M. Jayne, archt., 1104 1st Natl. Bank Bldg., 7 story, 150 x 200 ft., rein.-con., brick and stone, $500,000.

Col., Boulder—Gymnasium—University of Colorado, University Campus, soon receives bids, 2 story, 40 x 80 x 170 x 256 ft., $400,000. Day & Klauder, 925 Chestnut St., Phila., archts.

Col., Denver—Apartment—Country Club Apartment Co., 535 17th St., having plans prepared by H. W. J. Edbrook archt., Tabor Opera House Bldg., 6 story, rein.-con., brick and steel, concrete foundation, between Downing Blvd. and Ogden St., Ellsworth and Bayand Aves. $1,400,000.

Cal., Burbank—High School—Bd. Educ. and Allison & Allison, archts., Hibernian Bldg., Los Angeles, takes bids about Oct. 1, 1 and 2 story, 125 x 200 ft., rein.-con., brick, stone and tile, $150,000.

Cal., Orange—Auditorium—Bd. Educ. having plans prepared by Allison & Allison, archts., Hibernian Bldg., Los Angeles, 2 and 3 story, 125 x 150 ft., rein.-con., at High School, $160,000.

Cal., Santa Maria—High School—Allison & Allison, archts., Hibernian Bldg., Los Angeles, takes bids about Oct. 1, 1 and 2 story, 250 x 300 ft., concrete and brick, for Bd. Educ., $400,000.

BIDS DESIRED

Mass., Boston—Exchange—Oct. 5 by Densmore & LeClear, archts., 88 Broad St., 3 story, 40 x 60 ft., brick and concrete, concrete foundation, at 14 Belvidere St., also altering and constructing additional story to present 2 story 60 x 175 ft. building, for New England Telephone & Telegraph Co., 119 Milk St., $150,000.

Mass., Springfield—High School—Oct. 13 by Comrs. of City Property, Administration Bldg., 4 story, brick and steel, rein.-con. flooring, concrete foundation, State St. $800,000. A. H. Cote, chn. H. L. Sprague, 310 Main St., archt.

N. Y., New York—Apartment—One Ninety Eighth St. Corp., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, brick, steel and stone, concrete pile foundation, 198th St. and Valentine Ave., Bronx. $200,000. Work will be done by separate contracts under supervision of architect.

N. Y., Poughkeepsie—Schools—Oct. 7, by Bd. Educ., 22 Washington St., 2 story, 60 x 90 ft. addition to P. S. 7, Church St., $90,000; 2 story, 60 x 90 ft. addition to P. S. 9, Delafield St., $90,000; 2 story, 68 x 87 ft. addition to Warring School 10, Smith St., $85,000, rein.-con. and brick, plain foundations. W. J. Beardsley, Market St., archt. and engr. E. C. Smith, 39 Market St., archt. and engr. for latter.

N. J., Atlantic City—Hotel—Oct. 15, by H. H. Kline, archt., 1612 South 4th St., Phila., 5 story, 50 x 100 ft., stone, rein.-con. flooring, plain foundation, 11 South New Jersey Ave., here, for K. O. Donnell, $250,000.

Pa., Coatesville—Office—See "Industrial Works."

Pa., Phila.—Bank—Oct. 15, by R. W. Pollock, archt., 1802 Chestnut St., 2 story, 51 x 112 ft. rein.-con., brick and steel, rein.-con. flooring, at 3116 Market St., for Drovers & Merchants Bank, 3014 Market St. $175,000.

Pa., Phila.—Theater and Store—Oct. 15, by Hoffman-Henon Co., archts., Finance Bldg., 1 story, 110 x 180 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, at 1825-1833 Market, St. $500,000. Owner's name withheld. Noted Sept. 8.

Pa., Reading — Temple and Theatre — Rajah Theatre Corp., c/o E. C. Horn Sons, archts., 1476 Bway., New York, temple and theatre. $400,000. Work will be done by separate contract.

Pa., Stratford—Church—Oct. 12, by Italian Roman Catholic Church, c/o A. Scialabba, 2 story, 40 x 118 ft., brick, steel and stone, plain foundation, $150,000. H. G. Hammer, 1716 Spring Garden St., Phila., archt.

D. C., Wash.—High School—Oct. 20, Dist. Comrs., 509 Dist. Bldg., 3 story superstructure, including mechanical equipment, New Eastern High School, $700,000. A. L. Harris, Dist. Bldg., municipal archt. Noted Sept. 8.

N. C., Durham—School—Oct. 10, by Bd. Educ. two schools. $325,000 and $150,000. Milburn, Heister & Co., Union Savings Bank Bldg., Wash., D. C., archts. Noted June 16.

Tenn., Memphis—Club—Oct. 15, by H. J. Kramer and Regan & Weller, associated archts., Bank of Commerce Bldg., rein.-con. and tile, Adams and 3rd Sts., for Catholic Club Bldg. Assn. $300,000. P. M. Casola, pres. Noted Sept. 15.

O., Cleveland — Commercial and Apartment—J. Hoppert, 1263 East 187th St., receiving bids 2 story, 125 x 127 ft., brick, plain foundation, 18614 St. Clair Ave. $150,000. G. C. Smith, 5005 Euclid Ave., archt.

O., Lorain—High School—Oct. 20, by Bd. Educ., 2 story, 12 room, brick, steel and concrete, rein.-con. flooring, plain foundation, East 20th and Oakdale Sts., $250,000. F. C. Warner, Hippodrome Annex Bldg., Cleveland, archt.

Mich., Flint—School—Oct. 3, by A. J. Weildanger, secy. Bd. Trustees, Union School Dist., for Durant School, rein.-con., brick and steel, rein.-con. flooring, concrete

Buildings (Continued)

foundation, West 3rd Ave. $500,000. Malcolmson, Higginbotham & Palmer, 405 Moffatt Bldg., Detroit, archts.

Ill., Blue Island — Temple — Oct. 4, by Hyde & Brown, archts., 8 South Dearborn St., Chicago, 4 story, brick, rein.-con. and steel, for Masonic Temple Assn. Calumet Lodge 716, c/o E. B. Bronson, 423 Western Ave., Chicago. $150,000.

Wis., Merrill—High and Grade Schools—Oct. 12, by School Bd. H. R. Allen, clk., 2 story addition to high school and new grade school, brick and concrete, rein.-con. flooring, plain foundation. $190,000 and $70,000 respectively.

Wis., Three Lakes — High and Grade School—Oct. 18, by Bd. Educ., c/o C. Kuney, clk., 2 story, 92 x 93 ft., rein.-con., steel and brick, rein.-con. flooring, brick foundation, Main St. $200,000. Oppenheimer & Obel, Wausau, archts. Noted July 14.

Ia., Marshalltown—School—Oct. 11, by Bd. Educ., 3 story, 73 x 147 ft., rein.-con., brick and tile. $160,000. W. Clark, secy. Tyrie & Chapman, 1200 2d Ave., Minneapolis, Minn., archts.

Kan., Lawrence—High School—Oct. 4, by Bd. Educ. and W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., 3 story, $495,000. Noted Sept. 22.

Kan., Osawatomie—Hospital—Oct. 16, by State, c/o J. A. Kimball, Topeka, 2 story, here, $150,000. R. Gamble, 1415 Fillmore St., Topkea, archt. Noted July 28.

S. D., Sioux Falls—High School—Oct. 14, by Bd. Educ., 2 story, 78 x 178 ft., rein.-con., brick, tile and stone addition, $300,000. B. S. Van Slyke, clk. Perkins & McWayne, 322 Paulton Blk., archts. Noted June 7.

Wyo., Laramie—Office—Jan. 15, by J. P. Markley, Connor Hotel Bldg., 3 story, 72 x 132 ft., brick and terra cotta, 3d and Thornberry Sts. $175,000. W. Hitchcock, Laramie, archt.

Mo., Kirksville—School—Oct. 8, by G. M. Laughlin, 3 story, 96 x 100 ft., brick and stone. $200,000. I. Dunbar, Kirksville, archt. Noted June 9.

Mo., Springfield—Temple—Oct. 4, by Ben Adhem Shrine, c/o G. Glendorf, Landeas Bldg., 3 story, 140 x 267 ft., rein.-con. and steel, rein.-con. flooring, concrete foundation, St. Louis and Kimbrough Sts., $300,000. Heckenlively & Mark, Landers Bldg., archts.

Tex., Cisco—High School—Oct. 21, by Bd. Trustees, 3 story, brick and concrete. $175,000. Robertson & Griesenbeck, S. W. Life Bldg., Dallas, archts.

Okla., Oklahoma City—Club—Oct. 4, by Hawk & Parr, archts., Magnolia Bldg., 6 story, 125 x 140 ft., rein.-con., brick and stone, for Oklahoma Club, c/o J. Shartel. $350,000. Noted Aug. 4.

BIDS RECEIVED

R. I., Howard—Hospital, etc.—Penal & Charitable Com., State House, Providence, (1) 1 and 2 story, messhall, kitchen, chapel, and several other buildings, connecting corridors, (2) two ward buildings with connecting corridors, brick and timber, plain foundations, from W. Hamlyn & Son, Greenwich St., Providence, (1) $122,713, (2) $337,537; Mahoney & Tucker, Turks Head Bldg., Providence (1) $142,000; Central Eng. Constr. Co., Slater Trust Bldg., Pawtucket, (1) $143,454, (2) $332,848; C. B. McGuire, Grosvenor Bldg., Providence, (2) $314,727.

N. Y., New York—School—Bd. Educ., 500 Park Ave., P. S. 189, Amsterdam Ave. between West 188th and 189th Sts., from E. Diebitsch & Co., 383 Madison Ave., $587,000; Frymier & Hanna Co., 25 West 45th St., $629,900; J. T. Brady & Co., 103 Park Ave., $638,840. Noted Sept. 15.

N. J., Kearny (Arlington P. O.)—High School—Bd. Educ., 2 story, brick and limestone, Devon St., from G. Dose Eng. Co., 43 West 27th St., New York, $635,113; S. Schrimshaw Co., 526 Elm St., Kearny, $641,212; E. M. Waldron, 665 Broad St., Newark, $646,956. Noted Aug. 18.

CONTRACTS AWARDED

Me., West Pownal—Home—State Hospital Comn., Augusta, 1 story, 50 x 175 ft. dining building, 2 story, 32 x 135 ft. dormitory with two 32 x 47 ft. wings, brick and steel, plain foundation, here, to H. P. Cummings Constr. Co., Fidelity Bldg., Portland, $250,000. Noted Aug. 25.

Mass., Malden—Court House—Middlesex Co. (Cambridge), 2 story, 92 x 116 ft., brick, granite and steel, rein.-con. flooring, plain foundation, Washington St., here, to Walsh Bros., 150 Hampshire St., Cambridge. $200,000.

Conn., Hamden—School—For one 2 story, 10 room on Pine St., to Larkin-Carey Co., 166 Brewery St., New Haven; 2 story, 8 room school on Woodruff St., to Loucks & Clark, Wallingford, total $160,000. Both brick, steel and concrete, plain foundations. Noted Sept. 15.

Conn., New Haven — Apartment — S. Ladinsky, 40 Archt St., 3½ story, 132 x 160 ft., brick and steel, plain foundation, Whitney Ave. Work will be done by day labor.

N. Y., Brooklyn — Apartment — M. Halperin, 7 Bond St., 6 story, 100 x 100 ft., brick, steel and stone, concrete pile foundation, 4th St. and 8th Ave. $400,000. Work will be done by day labor. C. Infanger & Son, 2634 Atlantic Ave., archts and engrs.

N. Y., Cortland—Institution—Delano & Aldrich and C. H. Higgins, archts., 19 West 44th St., New York, group of buildings, brick and stone, brick foundations, here, near Croton-on-Hudson, to E. C. Brown Co., 70 East 45th St., New York, for Valeria Home, 7 East 42nd St., New York. $1,000,000. Noted Sept. 1.

N. Y., Elmhurst (Flushing P. O.)—Apartments—Jackson Heights Apartment Corp., Bridge Plaza, Long Island City, several brick and stone apartments, concrete pile foundations, here, to D. P. Robinson, 125 East 46th St., New York. $3,000,000.

N. Y., New York — Apartment—S. W. Straus & Co., 150 Bway., 50 x 100 ft., brick, steel and stone, concrete, pile foundation, 34 East 51st St., to F. F. French, Madison Ave. and 41st St., $600,000.

N. Y., New York—Community—Federation Settlement, Inc., 240 East 105th St., 5 story, 60 x 100 ft., brick and stone, brick foundation, 115-119 East 106th St., to Hegeman-Harris Co., 185 Co., 185 Madison Ave. $190,000. Noted Feb. 3.

N. Y., Perrysburg — Hospital — City of Buffalo, Municipal Bldg., additions to present buildings also various new buildings, here, to J. W. Cowper Co., Fidelity Bldg., Buffalo, $689,830. Noted Sept. 15.

N. J., Hackensack — Hospital — Crow, Lewis & Wick, archts. and engrs., 200 5th Ave., New York, to White Constr. Co., Hackensack, 6 story hospital, here, for Managers Hackensack Hospital. $700,000. Noted Sept. 22.

N. J., Morris Plains — Hospital — State Hospital, Comn., Trenton, general contract for 8 buildings, here, to C. J. Smith, 200 Academy St., Trenton, $216,575; plumbing, to Jeahnig & Peoples, 221 13th Ave., Newark, $21,246; heating, to G. J. Tobin, 187 North Ave., Plainfield, $28,771.

Pa., Glenside—Theater—Glenside Realty Co., 1 story, 65 x 108 ft. brick and steel, rein.-con. flooring, Carmel Ave., to Potts Bros. & Cooperson, 129 North 11th St., Phila., $150,000. Noted June 2.

Pa., Phila.—School—School Bd., 19th and Chestnut Sts., 3 story, 146 x 170 ft., rein.-con., brick and steel, rein.-con. flooring, concrete foundation, 7th and Morris Sts., to Wark Co., Broad and Walnut Sts., $314,000.

Pa., Scranton—Exchange—Bell Telephone Co., 17th and Arch Sts., 3 story, 120 x 120 ft. rein.-con., brick and steel, rein.-con. flooring, Adams Ave., to Central Constr. Co., Commonwealth Bldg., Harrisburg. Noted May 19.

Md., Salisbury—Church—G. E. Savage, archt., Witherspoon Bldg., Phila., 1 story, 100 x 125 ft. concrete and steel, rein.-con. flooring, rock foundation, to Hastings & Parsons, Salisbury, for Berbeda Methodist Church, $150,000. Noted Sept. 8.

D. C., Wash.—Building—Secretary Dept. Interior, home economics and dining hall, Howard University, general contract to Consolidated Eng. Co., Calvert Bldg., Baltimore, Md., $156,000; heating, plumbing and gas, Federal Heating Co., 310-13th St., N. W., $14,100; steel, Bethlehem Fabricators, Inc., Lehigh Ave., Bethlehem, Pa., $14,055. Noted Sept. 1.

N. C., Raleigh — School — State Bd. Educ., 3 story, 61 x 184 ft., rein.-con., to C. B. York Constr. Co., Raleigh. About $195,000.

Ala., Birmingham — Bank — Birmingham Trust & Savings Co., 112 North 20th St., 3 story, 80 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, 20th St., to Day & Sachs, Farley Bldg. $420,000; cost plus percentage basis.

Ala., Birmingham — Temple — Masonic Bodies, 3 story, 120 x 140 ft. rein.-con., granite and steel, on 6th Ave. N. and 19th St., to Smallman & Brice, 1115 Ave. E., $825,000; cost plus percentage basis.

O., Oberlin—High School—Bd. Educ., 2 story, 75 x 180 ft., brick, steel and concrete, rein.-con. flooring, plain foundation, from Willing Bros., Bellevue, $214,680; R. G. Witters, 1539 Harvard Court, N. W., Canton, $219,496. Noted Sept. 8.

Ind., Indianapolis—Church — Tabernacle Presbyterian Church, 11th St. and Meriden Circle, 1 story, brick, steel and concrete, rein.-con. flooring, plain foundation, to E. A. Wehr Co., Highland Bldg., Pittsburgh, Pa. $150,000. Noted Aug. 4.

Mich., Detroit—Police Station and Armory—Police Dept., Bates and Farmer Sts., 9 story, 117 x 172 ft. police station and 3 story, 99 x 168 ft. armory, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundation, St. Antoine St., to O. Misch Co., Detroit Savings Bank Bldg., $784,300. Noted Sept. 22.

Ill., Centralia — Bank and Office—City Natl. Bank, 5 story, 50 x 90 ft., brick, stone, steel and concrete, to Dickie Constr. Co., Syndicate Trust Bldg., St. Louis, Mo., $200,000. Noted Aug. 11.

Ill., Freeport—Theatre—J. Dittman, 149 Carroll St., 1 story, 90 x 140 ft., rein.-con., brick and terra cotta, to H. M. Wiley, 6623 Lowe Ave., Chicago, $150,000. Noted Sept. 15.

Ill., Kankakee—Club—Knights of Columbus, 6 story, 75 x 160 ft., rein.-con. and brick, to Honde Constr. Co., Legris Bldg., $150,000.

Ill., Moline—Apartment Hotel—F. L. Cornwall, La Salle Bldg., St. Louis, Mo., 15 story, 68 x 150 ft., rein.-con., brick, terra cotta and steel, $900,000. Work will be done by day labor. A. D. Gates, Moline, superintends construction. Noted Sept. 8.

Ill., Peoria—Apartment—J. Szold and associates, c/o Hewitt & Emerson, archts., Peoria Life Bldg., 3 story, 65 x 91 ft. brick, rein.-con. and stone, to W. Allen & Son, Jefferson Bldg., $150,000. Noted Sept. 1.

Neb., Hastings — Dormitory — Hastings College 4 story, 70 x 109 ft., rein.-con. and brick, to Hemmingway Constr. Co., Brandeis Bldg., Omaha, $150,000. Noted Aug. 4.

Mo., St. Louis—Hospital—E. A. Hadley, engr., Ry. Exch. Bldg., to J. Stewart & Co., Boatmens Bank Bldg., 7 story, 121 x 182 ft., brick, stone and concrete, Grand St. and Shaw Ave., for Missouri Pacific Ry., California and Eads Sts., $500,000. Noted Sept. 8.

Tex., Beaumont—Office—San Jacinto Life Insurance Co., 12 story, 60 x 115 ft., to J. Stewart, 214 1st Natl. Bank Bldg., Houston, $600,000.

Cal., Anaheim—Store and Office—S. Kraemer, 2 story, 135 x 135 ft., rein.-con., brick and steel, rein.-con. foundation, West Center St., to Wilson & Bever, Anaheim, $154,000.

Cal., Long Beach—Apartment House—Findley Constr. Co. and associates, 2nd Pl. and East Ocean Blvd., 7 story, 55 x 172 ft., rein.-con., pressed brick, terra cotta, tile and marble, East Ocean Blvd, $275,000. Work will be done by day labor.

Federal Government Work

PROPOSED WORK

Ill., Chicago—Radio Station—Spec. 4515—Bureau Yards & Docks, Navy Dept., Wash., D. C., rejected bids relocation radio station, Municipal Pier, here. Work will be done by yard labor. Noted Sept. 22.

BIDS DESIRED

Mass., Hull — Heating system — Oct. 13, Office Constructing Quartermaster, Coast Defenses Boston and Narragansett Bay, Boston, steam heating system N.C.O. Quarters, 5, Ft. Revere, here.

Md., Indian Head—Drainage, etc.—Spec. 4428—Oct. 5, by Bureau Yards & Docks, Navy Dept., Wash., D. C., draining, grading and waterproofing cooling pond, here. Noted April 28.

D. C., Anacostia—Storehouse—Spec. 4516—Oct. 12, Bureau Yards & Docks, Navy Dept., Wash., D. C., for pigeon supplies, here.

Va., Quantico — Water Supply Main — Spec. 4513—Oct. 12, Bureau Yards & Docks, Navy Dept., Wash., D. C., extending c. i. supply mains, here. Noted Sept. 1.

Ill., Chicago—Recreation Building—Oct. 17, by Treas. Dept., Wash., D. C., including mechanical equipment, for U. S. Public Health Service Hospital 2, Broadview, here. J. A. Wetmore, acting superv. archt.; adv. this issue.

Ia., Sioux City—Mailing Vestibule—Oct. 18, Treas. Dept., Wash., D. C., at U. S. Post Office, Court House and Custom House, here. J. A. Wetmore, acting superv. archt.

Ark., North Little Rock—Fire Alarm System—Oct. 20, Treas. Dept., Wash., D. C., in U. S. Public Health Service Hospital, Ft. Logan H. Roots, here. J. A. Wetmore, acting superv. archt.

Tex., Port Arthur—Operating Building—Spec. 4511—Oct. 12, Bureau Yards & Docks, Navy Dept., Wash., D. C., radio operating building, here. Noted Sept. 1.

N. M., Ft. Stanton—Repairs—Oct. 19, Treas. Dept., Wash., D. C., New Mexico Sanatorium, here. J. A. Wetmore, acting superv. archt.

Wash., Seattle—Emergency Dams—Oct. 22 (change of date) by U. S. Engineer for Lake Washington Ship Canal Locks, here; adv. this issue. Noted Aug. 11.

CONTRACTS AWARDED

Mass., South Boston (Boston P. O.)—Crane—Spec. 4478—Bureau Yards & Docks, Navy Dept., Wash., D. C., one 50-ton steam locomotive jib crane, Naval dry dock, here, to McMyler-Interstate Co., Stop 27, ABC Line, Bedford, O., $144,667 (250 days). Noted Aug. 11.

R. I., Newport—Refrigerating Equipment—Spec. 4499—Bureau Yards & Docks, Navy Dept., Wash., D. C., in Naval Station Hospital, here, to York Mfg. Co., York, $5,702 (60 days). Noted Sept. 15.

Pa., Phila. — Dredging — U. S. Engineer, Room 815, Witherspoon Bldg., dredging and rock removal, Schuylkill River, here, to P. Ross, Inc., 277 Washington St., Jersey City, N. J., $125,065. Noted Sept. 15.

D. C., Wash. — Heating System — Spec. 4510—Bureau Yards & Docks, Navy Dept., alterations and additions to steam distributing system, Naval Hospital, to J. W. Danforth Co., 72 Ellicott St., Buffalo, N. Y., $25,242. Noted Sept. 22.

N. C., Greensboro—Alterations to Post Office—Treas. Dept., Wash., D. C., altering basement and floors, U. S. Post Office, here, to Northeastern Constr. Co., Charlotte, $11,996. Noted Aug. 25.

Ill., Belleville—Airship Hangar—Chief Construction Service, Room 2242 Munitions Bldg., Wash., D. C., complete, including boiler-house, gas holder, roads, etc., at Scott Field, here, to W. M. Southerland Building and Contg. Co., Syndicate Trust Bldg., St. Louis, Mo., $1,043,492 (300 days). Noted Sept. 22.

Ill., Chicago—Deep Wells—Treas. Dept., Wash., D. C., deep well and pumping plant U. S. Public Health Service Hospital 2, Broadview, here, to F. M. Gray, Jr., 105 Wells Bldg., Milwaukee, Wis., $37,000. Noted Sept. 22.

Mich., Detroit—Dredging, etc.—U. S. Engineer, dredging and rock excavation, Livingston Channel, Detroit River, to Dunbar Dredging Co., Detroit, $414,500. Noted Aug. 25.

Ill., Rock Island—Cement—U. S. Engineer, 18,000 bbl. to Moline Consumers Co., 310 15th St., Moline, $41,886.

Wash., Puget Sound—Crane—Spec. 4478—Bureau Yards & Docks, Navy Dept., Wash., D. C., one 50-ton steam locomotive jib crane, Navy Yard, here, to McMyler-Interstate Co., Stop 27 ABC Line, Bedford, O., $162,899 (280 days). Noted Aug. 11.

Cal., San Diego — Dredgng and Filling, etc.—Spec. 4485—Bureau Yards & Docks, Navy Dept., Wash., D. C., let contract dredging and filling, repairing base, Navy Yard, here, to San Francisco Bridge Co., 14 Montgomery St., San Francisco, at $0.2015 per cu.yd. (200 days). Noted Sept. 15.

H. T., Pearl Harbor—Machine Shop—Spec. 4464—Bureau Yards & Docks, Navy Dept., Wash., D. C., 1 story, 181 x 520 ft., steel superstructure, at Naval Station, here, to C. A. Blume, 1309 6th Ave., San Francisco, Cal., $45,825 (170 days). Noted Aug. 11.

Miscellaneous

PROPOSED WORK

Hydro-Electric Development—Lenoir, N. C.—Caldwell Power Co. plans hydro-electric power development on Wilsons Creek, to develop not less than 3,000 hp., $50,000. Tucker & Laxton, Realty Bldg., Charlotte, engrs.

Wharf — New Orleans, La. — Bd. Port Comrs. plan repairing Celeste St. wharf, steel superstructure, $600,000. H. M. Gallagher, 1 Canal St., ch. engr.

Concrete Mixer — Kaukauna, Wis. — J. Coppes plans to purchase ½ yd. concrete mixer.

Hydro System — Brigden, Ont. — Moore Twp. plans system to supply part of township and Corunna. $30,000. V. A. Beacock, 190 University Ave., Toronto, engr.

Incinerator — Chatham, Ont. — Election Nov. 8, to vote on $40,000 bonds for incinerator. Address A. Brisco, mayor.

Hydro Lighting and Power System—Camlachie, Ont.—Plympton Twp. plans electric light and power system. $75,000. A. Lawler, 190 University Ave., Toronto, engr.

Hydro System—Centralia, Ont.—Plans new plant for lighting and power distribution, $25,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Electric Light and Power System—Crediton, Ont.—Plans new plant for lighting and power distribution, $33,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Hydro Lighting and Power System—Grand Bend, Ont.—Plans electric lighting and power distribution system, $25,000. H. W. Doer, Exeter, engr.

Hydro System — Petrolea, Ont. — Enniskillen Twp. plans lighting and power distribution system for entire township and towns of Oil City and Marthaville, $60,000. V. A. Beacock, 190 University Ave., Toronto engr.

Trackless Trolley System—Windsor, Ont.—Plans trackless trolley system. O. M. Perry, City Hall, engr.

BIDS DESIRED

Dock Wall, etc.—Buffalo, N. Y.—Oct. 10, Pub. Wks. Comn., Municipal Bldg., Sect. 2, dock wall in Buffalo Harbor, also channel improvement and dock wall in Buffalo River west of Ohio St. Bridge. Noted Sept. 22.

Inorganic Dust—New York, N. Y.—Oct. 4, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and delivering 1,500 tons inorganic dust. $10,000. Former bids rejected. Noted Sept. 22.

Cut Stone—Wash., D. C.—Oct. 22, at office Public Bldg. and Grounds, cut stone for granite copying; adv. this issue. Noted Sept. 8.

Steam Shovel — Cincinnati, O. — Queen City Crushed Stone & Gravel Co., 9th and Vine Sts., receiving bids steam shovel, ¾ or 1 cu.yd. bucket, steam driven, full revolving, Erie or Bucyrus preferred. H. P. Lange, purch. agt.

Electrical Equipment—Detroit, Mich.—Oct. 14, by Bd. Rd. Comrs. Wayne Co., 312 County Bldg., electrical equipment for double leaf bascule bridge crossing River Rouge on West Jefferson Ave.; adv. this issue.

Improving Piers, etc.—Montreal, Que.—Chairman Administrative Comn. receiving bids repairing guard piers, $24,000, shore cribs, $24,000, inlet through entrance dam, $10,000, overflows, $10,000, coping, $97,000.

Incinerator—Montreal, Que.—Oct. 20, by Chairman Administrative Comn., incinerator plant on Cremazie Rd., 300 ton capacity per 24 hours. $150,000. A. E. Doucet, City Hall, dir. pub. wks.

Jetty—New Westminster, B. C.—Oct. 26, by R. C. Desrochers, secy. Dept. Pub. Wks., Ottawa, third section of Steveston jetty at mouth of Fraser River, here. $50,000.

BIDS RECEIVED

Cement—Wash., D. C.—Dist. Comrs., 509 Dist. Bldg., 50,000 bbl., from Rosslyn Steel & Cement Co, Woodward Bldg., Rosslyn, Va., $2.24 per bbl.; Natl. Mortar Co., 101 M St., N. E., $2.25; Hudson Cement & Supply Co., Wash., $2.33.

CONTRACTS AWARDED

Coal Elevators and Pockets, etc.—New Haven, Conn.—T. C. Hadden Co., 195 Church St., 6 steel coal elevators and pockets, to Speciality Eng. Co., Trenton St., Phila., 60 x 80 ft. and 23 x 23 ft. grain elevators, to Hamden Constr. Co., 100 Putnam Ave., total $50,000.

Dock Wall—Buffalo, N. Y.—Pub. Wks. Comn., Municipal Bldg., dock wall in Buffalo Harbor, Sect. 1, to G. Parks & Son, 217 15th St., $39,799. Noted Sept. 22.

Incinerator—Brooklyn, N. Y.—Dept. Pub. Welfare, Municipal Bldg., New York, garbage incinerator at Kings Co. Hospital, here, from T. A. Reilly Co., 46 East 41st St., New York $18,875. Ettinger Contg. Co., $23,442. Noted Sept. 15.

Ferry Houses, etc.—Palmyra, N. J.—Tacony Ferry Co., c/o G. F. Sale, Liberty Bldg., Phila., timber and concrete ferry landing or wharf, 60 ft. wide, 180 ft. long with appurtenant bridge, etc., at foot Cinnaminson Ave., here, to S. E. Browne Co., 90 West St., New York, $38,491. Noted Aug. 4.

Piers — Phila., Pa. — Dept. Wharves, Bourse Bldg., superstructure Chestnut St. Pier 4, to J. S. Rogers Co., Drexel Bldg., $298,700. Noted Aug. 18.

Transmission Line and Equipment—Sheboygan, Wis.—Eastern Wisconsin Electric Co., c/o H. R. Ellis, mgr. electric transmission line from here to Fond du Lac and Oshkosh, to Eau Claire Electric Equipment Co., 308 Eau Claire St., Eau Claire, $500,000. Noted Sept. 8 under "Industrial Works."

Asphalt—St. Paul, Minn.—For 101 tons asphalt for paving Jefferson Ave. from Snelling Ave. to Fredericks St., from Roxanna Petroleum Co., 208 South Harrison St., Chicago, $20.50 per ton tank cars; Minnesota Rd. Equipment Co., 427 Plymouth Bldg., Minneapolis, $21.45; Standard Oil Co., of New Jersey, 3d and Commercial Sts., $23.75.

Incinerator — Dallas, Tex. — Four incinerator plants, to Superior Garbage Incinerator Co., Praetorian Bldg., $154,387. Noted Sept. 8.

Pier and Rip Rap—Aberdeen, Wash—Grays Harbor Port Comn., Cows Point, 800 ft. pier, 300 ft. wide, driving and capping 195,000 lin. ft. piling, decking 165,000 sq.ft. wharf, placing approximately 15,000 ton stone rip rap, to Grays Harbor Constr. Co., Hoquiam, $141,768.

Culverts—Ontario—Dept. Highways, Toronto, concrete culvertr, Contr. 270 and 449, to J. A. Vance, Woodstock, $17,000 and $6,000 respectively; Contr. 447, W. Clark & Sons, Owen Sound, $7,000; Contr. 448, G. H. Connibear, 265 St. Clair Ave., Chatham, $6,000; Contr. 450, Curran & Briggs, 51 Rushholme Park Crescent, Toronto, $6,000; Contr. 451 Murphy Constr. Co., 8 Wychwood Park, Toronto, $16,000; Contr. 452, W. G. Gibson, King St., Port Hope, $6,000.

OFFICIAL PROPOSALS

Bids: Oct. 17.

Paving and Culverts

Southport, N. C.

Sealed proposals, on blank forms furnished by the county, addressed to the Board of County Commissioners of Brunswick County, N. C., at Southport, N. C., will be received until 2 o'clock p.m., Oct. 17, 1921, for furnishing all material, equipment and labor for the following work:

Approximately 74,000 square yards of sheet asphalt, asphaltic concrete or Warrenite-Bitulithic road paving, complete with the necessary curb and pipe drainage; also approximately twelve concrete culverts, all as adopted by said board.

Each bid shall be accompanied by a certified check for at least five thousand ($5,000) dollars. Certified check shall be made payable to the chairman of the Board of Commissioners of Brunswick County, N. C. A satisfactory "bidder's bond" will be accepted in lieu of a certified check.

The right is reserved to reject any or all bids.

Plans and specifications can be seen at the office of the Register of Deeds, at Southport, N. C., and at the office of the Engineers at Elberton, Ga. Copies of the plans and specifications may be obtained from the Engineers upon payment of twenty-five ($25) dollars, fifteen dollars of which will be refunded upon their return in good condition.

Specifications may be obtained from Engineers upon payment of two ($2) dollars.

JOHN JENRETTE, Chairman.
W. H. WALKER,
Register of Deeds and Ex Officio Clerk of the Board of County Commissioners.
H. S. JAUDON ENGINEERING CO.,
Engineers, Elberton, Ga.

Bids: Oct. 24.

Pumping Machinery

City of Salem, New Jersey.

Sealed proposals, marked "Proposals for Pumping Machinery" and addressed to William B. Dunn, City Recorder, Salem, New Jersey, will be received until ten forty-five (10.45) o'clock a.m., on Monday, Oct. 24, 1921, at the City Council Chamber, for the furnishing of all of the materials and labor required for the installation of High Service Pumping Machinery in one Three Million Gallon Unit, and Low Service Pumping Machinery in one Three Million Gallon Unit, on concrete foundations to be furnished and installed by the City of Salem.

Specifications and information may be obtained at the office of Mr. William H. Boardman, Engineer, 426 Walnut St., Philadelphia, or at the office of the undersigned.

A certified check for $500 drawn to the order of "The City of Salem, New Jersey," or equivalent bidder's bond, must be accompany each proposal.

The City of Salem reserves the right to reject any or all proposals, or to accept any proposal subject to such modifications as the Engineer may recommend at any time prior to the signing of the contract.

WILLIAM B. DUNN,
City Recorder.
Salem, New Jersey.

Bids: Oct. 4.

Dragline Machine

Greenville, Miss.

Sealed bids for the purchase of a dragline machine with caterpillar or similar traction arrangement and equipped with internal combustion engine will be received by the County Board of Drainage Commissioners of Washington County, Mississippi, up to 11:30 o'clock a.m., on Tuesday, Oct. 4, 1921.

Further information on request.

O. C. KULICKA, Sec. and Treas.,
Greenville, Miss.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Tuesday morning (10 o'clock) can usually be published in the issue out the following Thursday. Special price for Official Proposals, 40 cents a line.

Bids: Oct. 7.

Highway Work

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 12 o'clock noon, eastern standard time, on Friday, the 7th day of October, 1921, for the improvement of highways in the following counties:

Chenango	(one highway: 0.72)
Essex	(one highway: 3.53)
Herkimer	(one highway: 1.09)
Orange	(one highway: 0.74)
Rockland	(one highway: 1.07)
Seneca	(one highway: 0.72)
Steuben (one completion)	(two highways: 6.00 and 4.16)
Suffolk	(one highway: 7.13)
Westchester	(one highway: 2.76)

Also for the reconstruction of the following:

Cattaraugus	(one contract)
Schenectady	(one contract)
Tioga	(one contract)
Westchester	(one contract)

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the division engineers in whose division the roads are to be improved or reconstructed. The addresses of the division engineers and the counties in which they are in charge will be furnished upon request.

The especial attention of bidders is called to "General Information for Bidders" in the itemized proposal, specifications and contract agreement.

HERBERT S. SISSON,
Commissioner.
J. C. FINCH,
Secretary.

Bids: Oct. 3.

Paving

Klamath Falls, Ore.

The City of Klamath Falls, Oregon, is calling for proposals to be opened Oct. 3, 1921, on approximately 45,000 yards paving, inviting proposals on bitulithic, concrete, willite and asphaltic concrete, including grading, curbing and drainage. Proposals to be made on blanks furnished by the City Engineer, to be accompanied by certified check for 5 per cent of bid. For detailed information address City Engineer Don J. Zumwalt.

A. L. LEAVITT, Police Judge.

Bids: Oct. 6.

South End Bridge

Springfield, Mass.

Sealed lump sum proposals for furnishing, fabricating, erecting and painting all necessary material for the strengthening of the South End Bridge over Connecticut River, between the City of Springfield and the Town of Agawam, Hampden County, Mass., will be received at the office of the City Clerk, Room 105, Administration Building, Springfield, Mass., until Twelve o'clock noon, Thursday, Oct. 6, 1921, at which time they will be publicly opened and read.

The work to consist of renewing 32 members of the existing eight thru lattice truss spans, while the trusses remain in their present position, the adding of lattice bracing to all bottom chords of end panels of the 16 trusses, the adding of cover plates and web strengthening plates to the 99 floor beams and the erecting of 14 additional steel posts on present masonry piers to support the floor system. The length of the structure to be strengthened is 1349 ft. and the width is 21 ft. 4 in. center to center of trusses.

Plans, specifications, proposal blanks and forms of contract and bond may be obtained at the office of the Superintendent of Streets and Engineering, Room 326 Administration Building, Springfield, Mass.

The City of Springfield will remove all existing wood flooring and will furnish and install all new wood flooring.

All proposals must be addressed to the Board of Supervisors, City of Springfield, Mass., and the envelope conspicuously endorsed, "Proposal for Strengthening the Steel Superstructure of the South End Bridge." Proposals must be made upon the forms prepared for the purpose, fully filled in, dated and signed. Proposals of other form or not properly filled in will be rejected.

Every proposal must be accompanied by a certified check in the amount of One Thousand ($1,000) Dollars, made payable to the Treasurer of the City of Springfield, which check will be returned to the bidder upon rejection of his proposal or upon his executing the contract and filing a satisfactory bond if his proposal is accepted. Should a bidder whose proposal is accepted refuse or neglect to sign the contract, or fail to furnish a satisfactory bond, the City will deduct from the $1,000 check an amount equal to the difference between bid first accepted and the amount of the contract as finally let. This deduction by the City will be as liquidated damages and not as a penalty.

The bidder whose proposal is accepted will be required to furnish at his expense and file with the City, within ten days from the award, a surety bond duly executed by a surety company authorized to do business within the Commonwealth of Massachusetts, in the amount of Twenty Thousand ($20,000) Dollars for the faithful performance of the contract.

Bidders must state in their proposal the time in which they will agree to complete the work if awarded the contract. This time of completion will be embodied in the contract and made an essential part therof. Bidders shall, upon request, furnish the Board of Supervisors with adequate evidence of their ability to correctly and expeditiously perform the work if awarded the contract.

The Board of Supervisors expressly reserves the right to reject any or all proposals and the right to accept any proposal, or to award the work as deemed to the best interests of the City. Written notification of the acceptance of any proposal sent by Registered Mail to the address given on the proposal form shall be considered an adequate notice of award.

Department of Streets and Engineering,
Springfield, Massachusetts.

By ROBERT P. MARSH,
Superintendent.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 7	Elkins, W. Va. Adv. Sept. 29 and Oct. 6.	Sept. 29
Oct. 10	Greenburgh, N. Y. Adv. Sept. 29 and Oct. 6.	Oct. 6
Oct. 10	St. George, S. I., N. Y.	Oct. 6
Oct. 11	Cordell, Okla.	Oct. 6
Oct. 11	Decatur, Ill.	Oct. 6
Oct. 13	Harrisburg, Pa. Adv. Sept. 22 to Oct. 6.	Sept. 29
Oct. 14	Ypsilanti, Mich. Adv. Oct. 6.	Oct. 6
Oct. 14	Forest Lake, Minn.	Oct. 6
Oct. 18	Va'paraiso, Fla.	Oct. 6
Oct. 20	Grand Rapids, Mich. Adv. Oct. 6.	Oct. 6
Oct. 24	Milwaukee, Wis. Adv. Sept. 29 and Oct. 6.	Sept. 29
Oct. 24	Salem, N. J.	Sept. 29
Oct. 24	Milwaukee, Wis. Adv. Sept. 29 and Oct. 6.	Oct. 6
Nov. 10	New York Adv. Oct. 6.	Oct. 6

SEWERS

Bids Close		See Eng. News-Record
Oct. 11	Passaic, N. J.	Sept. 22
Oct. 11	Hagerstown, Md.	Sept. 22
Oct. 11	Elmhurst, Ill.	Oct. 6
Oct. 14	Milwaukee, Wis.	Oct. 6
Oct. 18	Greenwood, Miss. Adv. Sept. 29 and Oct. 6.	Sept. 29
Oct. 18	Passaic, N. J.	Sept. 29
Oct. 18	Memphis, Tenn. Adv. Sept. 29 and Oct. 6.	Oct. 6
Oct. 25	North Arlington, N. J.	Oct. 6
Oct. 27	East San Diego, Cal. Adv. Sept. 29 and Oct. 6.	Oct. 6

BRIDGES

Bids Close		See Eng. News-Record
Oct. 10	Ebensburg, Pa.	Sept. 29
Oct. 10	Spanishburg, W. Va.	Sept. 29
Oct. 10	North Carolina	Sept. 29
Oct. 10	New York, N. Y.	Oct. 6
Oct. 11	Oklahoma City, Okla.	Oct. 6
Oct. 11	Scalp Level, Pa.	Oct. 6
Oct. 14	Detroit, Mich.	Sept. 22
Oct. 14	Ohio	Sept. 29
Oct. 14	Pasco, Wash.	Oct. 6
Oct. 18	Valparaiso, Fla.	Oct. 6
Oct. 19	Freehold, N. J. Adv. Oct. 6.	Oct. 6
Oct. 19	Tuscaloosa, Ala.	Sept. 29
Oct. 25	Salina, Kan.	Oct. 6
Nov. 15	Oklahoma City, Okla. Adv. Oct. 6.	Oct. 6

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Oct. 10	Durham, N. C.	Sept. 10
Oct. 11	Des Moines, Ia.	Oct. 6
Oct. 12	Baton Rouge, La.	Sept. 22
Oct. 12	Stratford, Pa.	Sept. 29
Oct. 12	Waukon, Ia.	Oct. 6
Oct. 13	Springfield, Mass.	Sept. 29
Oct. 14	Portage, Wis.	Sept. 29
Oct. 15	Phila., Pa.	Sept. 29
Oct. 15	Memphis, Tenn.	Sept. 29
Oct. 15	Osawatomie, Kan.	Sept. 29
Oct. 15	Atlantic City, N. J.	Sept. 29
Oct. 17	Stillwater, Minn.	Oct. 6
Oct. 20	Washington, D. C.	Sept. 29

STREETS AND ROADS

Bids Close		See Eng. News-Record
Oct. 7	New York Adv. Sept. 22 to Oct. 6.	Sept. 29
Oct. 10	Martinsville, Va.	Sept. 29
Oct. 10	Muskogee, Okla.	Sept. 29
Oct. 10	Hartsdale, N. Y. Adv. Sept. 29 and Oct. 6.	Sept. 29
Oct. 10	Jefferson City, Mo.	Sept. 29
Oct. 10	Odessa, Tex.	Sept. 29
Oct. 10	Midland, Tex.	Sept. 29
Oct. 10	Stanton, Tex.	Sept. 29
Oct. 10	North Carolina	Sept. 29
Oct. 10	Waukegan, Ill. Adv. Oct. 6.	Oct. 6
Oct. 10	North Carolina	Oct. 6
Oct. 10	Adel, Ia.	Oct. 6
Oct. 10	Johnstown, Pa.	Oct. 6
Oct. 11	Leavenworth, Kan.	Sept. 8
Oct. 11	Kansas City, Mo.	Oct. 6
Oct. 11	Claremont, Okla.	Oct. 6
Oct. 11	Okmu.gee, Okla.	Oct. 6
Oct. 11	Ionia, Mich.	Oct. 6
Oct. 11	Ada, Okla.	Oct. 6
Oct. 12	Webster City, Ia.	Oct. 6
Oct. 12	Ebensburg, Pa.	Oct. 6
Oct. 13	Weehawken, N. J.	Sept. 15
Oct. 14	Belleville, Kan.	Oct. 6
Oct. 14	Ohio	Sept. 29
Oct. 14	L'Anse, Mich.	Oct. 6
Oct. 17	Alabama	Sept. 15
Oct. 17	Los Angeles, Cal.	Sept. 29
Oct. 17	Southport, N. C.	Sept. 29
Oct. 17	California	Oct. 6
Oct. 18	Long Island City, N. Y.	Oct. 6
Oct. 20	Florida	Oct. 6
Oct. 26	Alabama	Oct. 6
Oct. 28	Duluth, Minn.	Oct. 6

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Oct. 11	St. Louis, Mo.	Oct. 6
Oct. 12	Kansas City, Mo.	Oct. 6
Oct. 14	Lawrence, Kan.	Oct. 6
Oct. 15	Phila., Pa.	Oct. 6
Oct. 20	Mt. Holly, N. J.	Oct. 6

BUILDINGS

Bids Close		See Eng. News-Record
Oct. 8	East Orange, N. J.	Oct. 6
Oct. 10	Harrisburg, Ill.	Sept. 22
Oct. 11	Providence, R. I.	Sept. 22
Oct. 11	Marshalltown, Ia.	Sept. 29
Oct. 11	North Platte, Neb.	Oct. 6
Oct. 11	Howard, R. I.	Oct. 6
Oct. 12	Merrill, Wis.	Sept. 29
Oct. 12	Trenton, N. J.	Oct. 6
Oct. 13	Springfield, Mass.	Sept. 29
Oct. 14	Sioux Falls, S. D.	Sept. 29
Oct. 15	Detroit, Mich.	Oct. 6
Oct. 15	Atlantic City, N. J.	Oct. 6
Oct. 15	Kansas City, Kan.	Oct. 6
Oct. 17	Middletown, Conn.	Oct. 6
Oct. 17	Los Angeles, Cal.	Oct. 6
Oct. 18	Three Lakes, Wis.	Sept. 29
Oct. 19	Toledo, O.	Oct. 6
Oct. 19	St. Louis, Mo.	Oct. 6
Oct. 20	Lorain, O.	Sept. 29
Oct. 20	Lorain, O.	Oct. 6
Oct. 24	Cleveland, O.	Sept. 8
Oct. 24	Cincinnati, O.	Oct. 6
Oct. 24	Columbus, O.	Oct. 6
Oct. 26	Wash., D. C. Adv. Oct. 6.	Oct. 6
Nov. 1	Santa Ana, Cal.	Oct. 6
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Oct. 10	Plumbing System—Memphis, Tenn. Adv. Sept. 22 to Oct. 6.	Sept. 22
Oct. 12	Lighting Plant, etc.—Port Townsend, Wash.	Sept. 22
Oct. 12	Storehouse — Anacostia, D. C.	Sept. 29
Oct. 12	Operating Building — Port Arthur, Tex.	Sept. 29
Oct. 12	Water Supply Main—Quantico, Va.	Sept. 29
Oct. 13	Heating System — Hull, Mass.	Sept. 29
Oct. 15	Revetment — Jacksonville, Fla. Adv. Sept. 22 to Oct. 6.	Sept. 22
Oct. 17	Recreation Building—Chicago, Ill.	Sept. 29
Oct. 18	Mailing Vestibule—Sioux City, Ia.	Sept. 29
Oct. 19	Repairs — Ft. Stanton, N. M.	Sept. 29
Oct. 19	Refrigerating Plant — Alexandria, La. Adv. Oct. 6.	Oct. 6
Oct. 20	Fire Alarm System—North Little Rock, Ark.	Sept. 29
Oct. 20	Dredging—Phila., Pa.	Oct. 6
Oct. 22	Emergency Dams — Seattle, Wash. Adv. Sept. 29 and Oct. 6.	Sept. 29
Nov. 2	Remodeling Barracks—Mare Island Cal.	Oct. 6
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6

MISCELLANEOUS

Bids Close		See Eng. News-Record
Oct. 10	Dock Walls, etc. — Buffalo, N. Y.	Sept. 29
Oct. 10	Lighting Fixtures—Creston, Ia.	Oct. 6
Oct. 10	Pumps—Montreal, Que.	Oct. 6
Oct. 11	Electrical Work, etc.—Ossining, N. Y. Adv. Oct. 6.	Oct. 6
Oct. 11	Piling and Lumber — New Orleans, La.	Oct. 6
Oct. 13	Refined Asphalt, etc.—New York, N. Y.	Oct. 6
Oct. 14	Electrical Equipment — Detroit, Mich.	Sept. 29
Oct. 14	Tunnel—Seattle, Wash.	Oct. 6
Oct. 20	Incinerator — Montreal, Que.	Sept. 29
Oct. 21	Subway—Detroit, Mich.	Oct. 6
Oct. 22	Cut Stone—Wash., D. C. Adv. Sept. 29 and Oct. 6.	Sept. 29
Oct. 25	Trestle and Bins—Washington, D. C. Adv. Oct. 6.	Oct. 6
Oct. 26	Jetty — New Westminster, B. C.	Sept. 29

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Turners Falls—Fire Dist. plans 16 in. c.i. main from 17th St. to reservoir. $61,000. C. W. Schuler, chn.

Pa., Phila.—Plans improving Belmont, Roxborough and Queen Lane reservoirs and filters, new pipe lines, etc., $2 000,000. C. E. Davis, City Hall, ch. Water Bureau.

N. C., Charlotte—Plans pumping station and overhauling water plant. $300,000. W. E. Vest, 806 West Trade St., engr.

O., Portsmouth—Soon takes bids for c.i. pipe, valves, boxes and pig lead for pipe line extension. $50,000. G. S. Wilhelm, city engr.

Mich., Ferndale—Voted $110,000 bonds to extend mains 4, 6 and 8 in c.i. pipe. G. Jerome, 1331 Majestic Bldg., Detroit, engr.

Ill., Elmhurst—Making plans 4-6 in. c.i. mains. $30,000. F. M. Newman, clk. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Waukegan—Making plans filtration plant and pumping station, rein.-con., brick and steel. $600,000. M. J. Douthitt, city engr.

Ia., Dubuque—Making plans, new mains and pumping station. $35,000. D. H. Maury, 33 West Jackson Ave., Chicago, engr.

Kan., Hoxie—Making plans mains and sewers in various streets. $50,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

Mo., Burlington Junction—Election Oct. 17, $39,000 bonds waterworks and sewerage system. E. T. Archer & Co., New England Bldg., Kansas City, engrs.

Okla., Crescent—Voted $30,000 bonds pipe lines. W. B. Rollins Co., 209 Ry. Exch. Bldg., Kansas City, Mo., engrs.

Waterworks (Continued)

Col., Rock Ford—Making plans waterworks. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., consult. engrs.

Ont., London—Progressive Natural Gas Co., Hamilton, takes bids about Oct. 10, laying 3 mi. mains from here to Crumlin, also drilling several additional wells. $28,000. G. L. Goodrow, mgr.

BIDS DESIRED

New York—Nov. 10, by Bd. Water Supply, Municipal Bldg., Park Row, Centre and Chamber Sts., New York, siphon pipes of Catskill Aqueduct, in towns of Olive and New Windsor, Contr. 209; Phillipstown, Cortlandt, Yorktown and Mt. Pleasant, Contr. 210; Mt. Pleasant, Greenburg and Yonkers, Contr. 211. B. F. Einbigler, secy.; adv. this issue.

N. Y., Greenburgh—Oct. 10, by Scarsdale Bd. Water Comrs., Popham and Post Rds., Scarsdale, 0.3 mi. 16 in. c.i. force main, etc., here; adv. this issue.

N. Y., S. I., St. George—Oct. 10, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, hauling and laying mains and appurtenances in Arrietta St. and along bulkhead wall from Arrietta St. to Clifton.

Fla., Valparaiso—Oct. 18, by A. P. Kastler, clk., 12,000 ft. 4-8 in. Grade B c.i. pipe, one 30,000 gal. tank on 100 ft tower, etc.

Mich., Grand Rapids—Oct. 20, by G. J. Wagner, dir. Pub. Serv., concrete construction, filter plant extension. R. E. Harrison, ch. engr.; adv. this issue.

Mich., Ypsilanti—Oct. 14, 3 motor driven centrifugal pumping units. H. E. Holmes, clk. Hoad & Decker, Ann Arbor, consult. engrs.; adv. in this issue.

Ill., Decatur—Oct. 11, 4 and 6 in. c.i. mains. $26,000. W. Collins, Milliken Bldg., city engr.

Minn., Forest Lake—Oct. 14, by village, one 27 ft. concrete well, 18 in. diameter, one brick and concrete pump house, one triplex and one centrifugal pump with motors, piping switchboard, etc. $15,000. Druar & Milinowski, 504 Globe Bldg., St. Paul, engrs. Noted June 30.

Okla., Cordell—Oct. 11, filtration plant. $50,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs. Noted Sept. 8.

Que., Montreal—Oct. 10, by C. J. Des Baillets, engr. Water Bd., 50 Notre Dame St. W., 1, 2 or 3 electrically driven pumps, 30,000,000 gal. capacity, $100,000.

CONTRACTS AWARDED

Pa., Phila.—For improving Lardners Point pumping station, to Nelson-Pedley Co., Lincoln Bldg., $19 980; pump units at Bellmont filters, to Frederick Iron & Steel Co., 235 Harrison St., Baltimore, Md., $16,800; distribution and aerating flumes, to M. and J. B. McHugh, 892 North Markoe St., $36,667; chlorine apparatus, to Ross & Tiernan Phi'a., $1,095; terra cotta ducts and laying 20 in. c.i. pipe, to F. T. Buckins, Jr., Deal and Kensington Sts., $14,820 and $49,317 respectively; electric cranes, to A. Cox & Co., Phila., $4,672; 1,600 ton 20 in. c.i. pipe, to Donnelson Iron Co., Phila., $63,520; 80 ton specials, Lux Co. Inc., Phila., $6,384; coal handling apparatus, to Specialty Eng. Co., Allegheny and Trenton Aves., $16,075. Noted Sept. 22.

O., West Park—See Sewers".

Wis., LaCrosse—For 6-8 in. mains, to Mankato Constr. Co., Mankato, Minn., $15,484.

Ia., Dayton—Four to six in c.i. mains, to H. Legut, Webster City, $25,000. Noted Sept. 22.

Okla., Pryor Creek—H. E. Rogers, clk., improving waterworks, building chemical house and laying 6 mi. transmission lines, to Ajax Constr. Co., Lawton, $35,000. Noted Sept. 22.

Sewers

PROPOSED WORK

Pa., Phila.—Plans 12 ft. 6 in. concrete sewer with latera's in Bigler St., $2 000,000, also additions to sewer treatment plants, $200,000. C. Frommer, City Hall, 1st asst. engr.

N. C., Charlotte—Plans several miles sewers. $150,000. W. E. Vest, 806 West Trade St., engr.

O., Cincinnati—Bd. Pub. Serv. opens bids about Dec. 1, 4,560 ft. 30-48 in. brick, concrete, concrete block or segmental block sewer also 10,730 ft. 12-24 in. pipe sewer etc., in Madisonville Dist. 7. $134,000. W. Sullivan, City Hall, engr.

O., Findlay—Plans election in November, $210,000 bonds, sewage disposal plant. Hoad & Decker, Ann Arbor, Mich., engrs.

Mich., Ferndale—Plans vitr. crock, concrete and brick sewers, $60,000. G. Jerome, 1331 Majestic Bldg., Detroit, engr.

Ill., Auburn—Making plans sanitary and storm sewerage system, $40,000. Holbrook, Warren & Anderson, Decatur, engrs.

Ill., Waukegan—Making plans 8-12 in. glazed tile sewers in various streets. $25,000. M. J. Douthitt, city engr.

Minn., Deer River—Making plans for sewerage system, $40,000. W. S. Runyon, clk. Druar & Milinowski, 504 Globe Bldg., St. Paul, engrs.

Kan.,—Hoxie—See "Waterworks".

Mo., Burlington Junction—See "Waterworks."

Mo., Carthage—Making plans 8-16 in. glazed sewers in Dists. 17, 59 and 39. $29,000. F. B. Newton, Carthage, engr.

Mo., Columbia—Making plans 2 rein.-con. septic tanks and 9-12 in. sewers in various streets. $128,000. D. Silver, City Hall, engr.

Mo., Marceline—Soon takes bids sanitary sewers and sewerage disposal plant. $210,000. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., consult. engrs. Noted June 16.

Okla., McAlester—Receives bids latter part of October, outfall sewers and sewerage disposal plant. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., consult. engrs. Noted June 23.

Ont., Kitchener—Plans filter plant for sewerage. $35,000. Address A. H. Millar, City Hall.

BIDS DESIRED

N. J., North Arlington—Oct. 25, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, part of Sect. 26 Kearny-North Arlington Branch Intercepting, Sewer, consisting of North Arlington River crossing here and in Belleville Twp., earth excav., dredging and refilling in trench and open excavations, for 20 in. c.i. pipe line crossing Passaic River laying 20 in. c.i. pipe (all c.i. pipe and specials to be furnished by commissioners), 95 cu.yd. concrete masonry, etc. J. R. Van Duyne, ch. engr.

Pa., Johnstown—See "Streets and Roads."

Tenn., Memphis—Oct. 18, at office C. C. Pashby, city clk., City Hall, Binghamton, sanitary sewer outlet main; adv. this issue.

Ill., Elmhurst—Oct. 11, 8-12 in. vitr. tile sewers in Mowreau Sub-Division. $25 000. E. Hancock, 2047 Ogden Ave., Chicago, engr. Noted Aug. 18.

Wis., Wilwaukee—Oct. 14, by Sewerage Comn., concrete foundation for 68 x 166 ft. boiler house on Jones Island.

Cal., East San Diego—Oct. 27, by W. W. Easton, city clk., lateral sewerage system; adv. this issue.

BIDS RECEIVED

Pa., Phila.—For (1) 12 in. concrete sewer in Ashdale St. from Front to Fisher Aves., (2) 5 ft. brick sewer in Erie Ave. (3) 7 x 10 ft. concrete sewer in Packer St. from 22nd St. to Penrose Pl., and Moyamensing Ave. from Penrose Pl. to 18th St., (4) 5 x 7 ft. concrete sewer in Packer St. from Penrose Pl. to 18th St, (5) 3 ft. brick sewer in 9th St. from Moore to Tasker Sts., from A. Pascutti, Lincoln Bldg., (1) $144,523, (2) $27,808, (3) $103,690; Higgins & Reilly, Real Estate Trust Bldg., (1) $179,658, (2) $35,672, (4) $53,652; Ryan Constr. Co., Real Estate Trust Bldg., (1) $156,542; J. J. McHugh, 1617 Race St., (2) $37,583, (4) $49,793, (5) $25,873; Cunningham & Murray, 1345 Arch St., (3) $127,655; J. Lombardi, Lincoln Bldg., (3) $135,988; Union Foundation Co., Phila., (4) $40,459; A. Devito, Phila., (5) $18,150, Acchione & Canuso, 763 South 12th St., (5) $21,653.

Mich., Detroit—Dept. Pub. Wks., (lateral sewers, (1) 3441, (2) 3501, (3) 3502, (4) 3503, (5) 3511, (6) 3519, (7) 3524, (8) 3525, (9) 3526, (10) 3527, (11) 3528, (12) 3530, (13) 3533, from W. Porath, 1410 West Grand Blvd., (1) $12,632, (8) $12,633, (11) $824, (12) $2,625; Oakwood Constr. Co., 165 Fort Bldg., (1) $12,081 (2) $43,000, (3) $45,000, (4) $6,600, (5) $4,708, (6) $51,000, (10) $3,200; Detroit Drainage Constr. Co., 1604 Pennsylvania Ave., (1) $12,290, (3) $42,700, (4) $6,193, (5) $4,158, (6) $48,000, (7) $12,600, (8) $10,134, (9) $1,193, (11) $768, (12) $2,362, (13) $3,400; Detroit Contg. Co., 827 Ford Bldg., (2) $39,982; M. C. Livingstone, 778 Wilde Ave., (2) $38,068; Langley & Barton, 3784 Lincoln Ave., (3) $44,600; McCordie Constr. Co., 1340 Penobscot Bldg., (4) $6,600, (10) $3,300; R. D. Baker, 1415 Penobscot Bldg., (5) $4,500, (9) $1,200; Gustin & Co., 5332 Allendale Ave., (6) $48,500; Liberty Constr. Co., 917 Detroit Savings Bank Bldg., (7) $17,445, (8) $12,700; Western Constr. Co., 1208 Ford Bldg., (7) $16,870, (9) $1,274, (10) $3,260; G. Tata, 9650 Oakland Ave., (11) $790, (13) $3,510; A. Di Faxio, 1556 St. Joseph St., (12) $3,000; A. Rossi, 1778, East Grand Blvd., (13) $3,643.

CONTRACTS AWARDED

Md., Baltimore—Sewers in area bounded by Barclay St., Old York Rd., 32nd St and old city line, to F. Carozza, Calvert Bldg., $42,197; intercepting mains at Locust Point, to D. Catalono, 265 East St., $29,559.

O., Akron—Director Pub. Serv. Northside Intercepter Sewer, to M. H. O'Toole, Akron, $39,601; Little Cuyahoga Intercepter Sewer and sewer in South Arlington St. Dist. to T. E. McShaffrey Constr. Co., North Portage Path and Sunnyside Ave., $73,782 and $68,593 respectively. Noted Sept. 29.

O., West Park—Ford Realty & Constr. Co., Cadillac Bldg., Cleveland, 30,000 ft. 8-36 in. vitr. sewers in Ford Allotment, here, to W. B. Smith, 1350 West 89th St., Clevland, $112,000. Noted Aug. 25.

O., West Park—Laying sewers and water mains in Normandy, Belmar, Ernadale, Lauerdale, Silverdale, Derby, West 158th and West 159th Sts., to Gallagher & Burke Constr. Co., 1339 Irene Ave., Lakewood, $42,348. Noted Sept. 22.

Mich., Ecorse—For 1,183 ft. 2 ring brick sewer 2 ft. 10 in. x 4 ft. 3 in. egg shape in Cicotte Ave., to Langley & Barton, Penobscot Bldg., Detroit, $25,000. Noted Sept. 8.

Ill., Decatur—Tile Sewers in Johns Ave, to S. W. John, 1054 East Cantrell St., $66,069 Noted May 26.

Ia., Des Moines—Storm sewer in West 39th St., to G. T. Johnson, 220 East 5th St., $28,649. Noted Sept. 29.

Ia., Sioux City—Sanitary sewerage system Hedges addition north of Morningside Ave., 40,700 lin. ft. 8-10 in. pipe, to F. E. West, Sioux City, $70,000. Noted Aug. 18.

Minn., Austin—Main intercepting sewer and sewers in Bauman Ave., Dobbins and West Sts., 13,619 ft. 30-42 in. pipe and 50 manholes, to Gedney & Murphy, 212 Lumber Exch. Bldg., Minneapolis, $155,029. Award made conditional on city voting bonds Oct. 25. Noted Sept.

S. D., Mitchell—Lateral sewers in various streets, to Parrett & Tuttle, Mitchell, $30,000. Noted Aug. 18.

S. D., Tyndall—Complete sewerage system, 8-18 in. vitr. pipe and disposal tank, to W. B. Carter, Union Bank Bldg., Sioux City, Ia. $41,000. Noted May 12.

Bridges

PROPOSED WORK

Ill., Aurora—See "Miscellaneous".

Wis., Green Bay—W. Kerr city clk., takes bids after Oct. 15, 600 ft. double leaf steel bascule, 45 ft. wide, on Main St. Strauss Bascule Bridge Co., 225 North Michigan Ave., Chicago, engrs.

Missouri—State Highway Dept., Jefferson City, plans five 80 ft. pony truss steel span bridge over Logan Creek, State Aid Project 218.47 C, Reynolds Co. $30,671. A. Graham, state highway engr.

Col., Buttes—State Highway Dept., Denver, making plans steel truss bridge, concrete abutments and approaches, over Fountain River, here. $65,000. L. D. Blauvelt, State Museum Bldg., Denver, engr.

Washington—State Highway Comn., Olympia, plans 1,622 ft. steel and frame bridge over Snake River between Whitman and Garfield Counties. $250,000. J. Hamilton, Colfax, dist. engr.

BIDS DESIRED

N. Y., New York—Oct. 10, by G. A. Whalen, comr. Plant & Structures, Municipal Bldg., vehicular roadway on easterly upper deck of Manhattan Bridge.

Bridges **(Continued)**

N. J., Freehold—Oct. 19, by Freeholders Monmouth Co., Bridge Mn., 32, on Freehold-Englishtown Rd., Manalapan Twp. G. D. Cooper, 60 Broad St., Red Bank, co. engr.; adv. this issue.

Pa., Scalp Level—Oct. 11, by W. H. Lehman, boro. secy., or O. P. Thomas, engr., Park Bldg., Johnstown, rein.-con. floor and concrete rails on Highway Bridge, Main St., $25,000.

Fla., Valparaiso — Oct. 18, by A. P. Kastler, clk., 734 ft. pile bent timber bridge.

Kan., Salina—Oct. 25, by Salina Co., steel Pratt spans, concrete piers, abutments and floor, Project 44, Sect. E. $25,000. C. H. Cost, co. engr.

Oklahoma—Nov. 15, by E. S. Alderman, state engr., Oklahoma City, constructing 4 bridges in Muskogee Co. B. E. Clark, comr. of highways; adv. this issue.

Okla., Oklahoma City—Oct. 11, by Oklahoma Co., c/o B. C. Clark, comr., 160 ft. steel truss; 36 ft. wide, concrete piers and abutments, Federal Aid Project 19. $30,000. E. S. Alderman, c/o State Highway Dept., engr.

Wash., Pasco—Oct. 14, by T. O. Webster, secy. Benton and Franklin Inter Co. Bridge Co., Union Trust Co., 3 East Main St., Walla Walla, 3,236 ft. toll bridge across Columbia River between here and Kennewick, 20 ft. raodway. $400,000. M. M. Caldwell, c/o Union Bridge Co., Central Bldg., Seattle, ch. engr. Noted Sept. 22.

BIDS RECEIVED

North Carolina—State Highway Dept., at div. office, Asheville, rein.-con. bridges and culverts on State Project 557, Madison Co., from O'Brien Constr. Co., Balsam, $64,682; E. T. Belote & Co., Asheville, $66,066; Porter & Peck, Greenville, $66,631. Noted Sept. 8.

S. D., Yankton—Yankton Co., bridge on Yankton—Salem Rd., Federal Aid Project 77, from Lamoreaux Bros. Co., 805 Brandeis Theater Bldg., Omaha, Neb., $28,205; D. D. Bidwell, Eagan, $28,294.

Que., Montreal—For steel bridge on Sherbrooke St., E., from A. Leduc, 351 Chirstophe Colombe St., $144,100; J. Quinlan & Co., 1165 Green Ave., $149,983; A. Gratton, 142 5th Ave., $153,889. Noted Sept. 8.

CONTRACTS AWARDED

Ark., Harrison—Rd. Impvt. Dist. 1, 135 ft. bridge across Crooked Creek, 90 ft. steel span with 45 ft. wood approaches. Former bids rejected, work will be done by day labor. In market for steel span. W. H. Cecil, secy.

Railways

CONTRACTS AWARDED

Massachusetts—Comrs. Hampden Co., 1,000 ft. double steel raiway tracks on new Connecticut River Bridge from Springfield to West Springfield, to H. P. Converse & Co., 88 Broad St., Boston, $29,220. Noted Sept. 22.

Excavation and Dredging

PROPOSED WORK

Ia., Council Bluffs—Excavation—Pottawattamie Co., rejected bids opened Sept. 15, excavating 17 mi. old creek channel, Allen Creek D. D., 315,000 cu.yd. $30,000. Noted July 28.

Minn., Waseca—Ditch—Waseca Co. rejected bids opened Sept. 20, for Co. Ditch 15, Main 2. $78,127. G. Cox, Waseca, engr. Noted Sept. 8.

BIDS DESIRED

Ia., Des Moines—Drainage—Oct. 11, by C. W. Rhoades, aud. Polk Co., 14,500 ft. 8-20 in. tile, D. D. 36, $30,000. F. O. Laing 2016 Washington Ave., engr.

Ia., Waukon—Excavation—Oct. 12, Bd. Supervs. Allamakee Co., new channel upper Iowa River, D. D. 1, from station 0-10 to station 338, 414,238 cu.yd. excav. C. A. Palmer, aud.

Minn., Stillwater—Ditches—Oct. 17, by Washington Co., Judicial Ditch 5, main drain and branch 1, 16,570 ft. 8-20 in. tile, $14,894; Judicial Ditch 6, 7,965 cu.yd. excav., 6,040 ft. 14-24 in. tile $12,050; Judicial Ditch 7, main drain and branches 1, 2 and 3, 15,619 ft. 8-15 in. tile, $12,024. J. F. Kilty, aud. Noted Aug. 4.

CONTRACTS AWARDED

Minn., Crookston — Ditch — Polk Co., Ditch 140, 314,461 cu.yd. excav., 12.5 mi. road leveling, 2,200 lin.ft. 36 in. tile, etc., to Union Drainage Co., Crookston, $43,265, bridges, to C. E. Winberg, Hillsboro, N. D., $6,079, pipe culverts, to North Dakota Metal Culvert Co., 501 4th St., Fargo, N. D., $1,861; Co. Ditch 143, 86,861 cu.yd. excav., to Union Drainage Co., Crookston, $11,469, bridges and culverts, to P. H. Gramer, Crookston, $5,308; Co. Ditch 144, excav., road work, etc., to Union Drainage Co., Crookston, $11,162, bridges, to C. E. Winberg, Hillsboro, N. D., $4,957, culverts to North Dakota Metal Culvert Co., 501 4th St., Fargo, N. D., $1,093.

Wyo., Cowley—Drainage—Cowley D. D., 5 mi. open drain ditch, 135,000 cu.yd. excav., 56,170 lin. ft. 10-15 in. tile and 69 manholes, to C. W. Taggart, Lovell, and Snyder Bros., Cowley. Total cost $152,000. Noted Sept. 29.

Streets and Roads

PROPOSED WORK

Mass., Chicopee—Plans paving Meadow St. $25,000. F. P. Cobb, city engr.

Pa., Philadelphia—Plans extending Delaware Ave. north of Laurel St., demolishing buildings, widening street, paving, curbing, sidewalks, etc. $500,000. F. C. Dunlap, 216 City Hall, engr.

Pa., Phila.—Opens bids within year 1921 approaches to bridge over Delaware River including widening streets, condemning buildings and new paving. $1,050,000. F. C. Dunlap, City Hall, engr.

North Carolina—State Highway Dept., Raleigh, plans to clear, grub, grade, drain and surface 7 mi. road from Pollocksville to Onslow Co. line near Maysville, State Project 654, Jones Co., $50,000, 17 mi. State Project 655, Harnett Co., $85,000 14.3 mi. road from Raeford to Scotland Co. line, State Project 674, Hoke Co., $100,000, 15.5 mi. road from Southern Pines to Lee Co. line, State Project 673, Moore Co., $100,000, 12.2 mi. from Carthage to Pinehurst, State Project 672, Moore Co., $90,000, 27.2 mi. from Riedsville to Yanceyville via Lawsonville, State Project 667 Rockingham and Caswell Counties, $175,000; grade, drain and surface with penetration macadam 7 mi. from Madison to Stoneville, State Project 665, Rockingham Co., $50,000, 7.3 mi. from Stoneville to Virginia State Line, State Project 666, Rockingham Co., $90,000; grade, drain, bridge and topsoil 12.9 mi. from Sanford to Moore Co. line, via Jonesboro, State Project 661, Lee Co., $120,000, 9.8 mi. from Franklinton to Louisburg, State Project 662, Franklin Co., $90,000, 12.9 mi. from Hillsboro to Chapel Hill, State Project 663, Orange Co., $100,000; grade, drain and pave with some type of hard surface 7.5 mi. from Laurenburg to Maxton, State Project 675, Scotland Co., $300,000, 6.3 mi. from Henderson to Granville Co. line, State Project 658, Vance Co., $250,000, 11.8 mi. from Roxboro to Durham Co. line, State Project 657, Person Co., $405,000, 4.5 mi. from Oxford to Vance Co. line, State Project 659, Granville Co., $175,000, 8.7 mi. from Person Co. line to within 9 mi. of Durham, State Project 660, Durham Co., $325,000; grade, drain, surface and bridge 7 mi. from Aberdeen to Richmond Co. line, State Project 669, Moore Co., $70,000, 9.9 mi. Raeford to Robeson Co. line, State Project 671, Hoke Co., $80,000; grade, drain and surface 5 mi. from Warrenton to Liberia, State Project 556, Warren Co., $40,000; clear, grub, grade, drain, bridge and hard-surface with concrete or some asphaltic type 12 mi. from Thomasville to Lexington, State Project 668, Davidson Co., $450,000. C. M. Upham, state highway engr.

N. C., Wilmington—Plans hard surfacing various streets. $200,000. J. H. Cowan, mayor.

Fla., Lake Wales—Plans street improvements, 200,000 sq.yd. paving. $500,000. J. W. Turner, Raymondo Bldg., Lakeland, engr.

O., Cincinnati—Rapid Transit Comrs. take bids after Oct. 9, grading, open cut work and paving Sect. 5, Rapid Transit Subway, 60,000 cu.yd. earth excav., 422 cu.yd. reinforced and 670 cu.yd. mass concrete, 2,500 sq.yd. brick paving and 770 sq.yd. concrete road. $125,000. F. Rashig, City Hall, subway engr.

Mich., Detroit—Had plans prepared resurfacing Leland St. from Brush to Beaubien Sts., 1,200 sq.yd. asphalt, Illinois Ave. from Brush to San Antoine Sts., 2,400 sq.yd. asphalt, Benson St. from Mt. Elliott Ave. to Beaufait St., 2,100 sq.yd. asphalt, Hazel St. from Harrison to Wabash Sts., 3,000 sq.yd. asphalt, Benson St. from Bellevue to Boulevard, 3,000 sq.yd. asphalt; grading and paving Lillibridge Ave. from Canfield to Shoemaker Aves., 4,584 cu.yd. excav., 5,800 lin.ft. Medina curbstone, 8,578 sq.yd. sheet asphalt on 8 in. concrete base. C. W. Hubbell, City Hall, city engr.

Ill., La Salle—Making plans paving 4th St., vitr. brick on concrete base. $26,000. E. Byrne, City Hall, engr.

Ill., Moline—Making plans paving 5th Ave. from 17th to 23rd Sts., vitr. brick on concrete base. $25,000. R. W. Penell, City Hall, engr.

Ill., Sesser—Plans 21½ mi. one course concrete sidewalks, 10,520 cu.yd. earth excav. and 451,488 sq.ft. sidewalk $163,157. C. B. Mautz, Benton, engr.

Ill., Waukegan—Lake Co. making plans paving 4.25 mi. Rand Rd., 18 ft. wide. $40,000. C. M. Powell, Waukegan, engr.

Ia., Des Moines — Making plans paving Rollins Ave., vitr. brick on concrete base. $30,000. K. C. Kastberg, city engr.

Ia., Shenandoah—Plans grading, paving and vertical curbing about 6 blocks, Sheridan Ave., portland cement, vertical fiber brick, asphaltic concrete, or vitr. brick. $28,000. F. H. Sanman, clk.

Missouri—State Highway Dept., Jefferson City, plans 3.78 mi. road from Edina northward and southward, State Aid Project 20.106, Knox Co., 29,431 cu.yd. earth excav., 4,571 cu.yd. borrow, 271 cu.yd. concrete. $26,228. A. Graham, state highway engr.

Mo., Maplewood—Will soon take bids paving Zypher Pl. $25,000. Former bids rejected. A. H. eBard, Chemical Bldg., St. Louis, engr. Noted Sept. 8.

Tex., Breckenridge—Stephens Co. making plans clearing, grubbing, grading, surfacing and draining 2.01 mi. State Highway 1, 19,510 sq.yd. 2 in. bituminous macadam, 62.12 cu.yd. Class A concrete, 8,677 lb. reinforcing steel, $71,799; 2 mi. State Highway 1, 14.4 acres clearing and grubbing, 15,063 cu.yd. borrow, 23,333 sq.yd. 2 in. bituminous macadam, 90.72 cu.yd. Class A concrete, 7,349 lb. reinforcing steel, 7,778 cu.yd. crushed stone, $86,742; 8.32 mi. Highway 1, 43,363 cu.yd. roadway and 1,462 cu.yd. solid rock excav., 2,013 cu.yd. Class A and 139 cu.yd. Class B concrete, 41,509 gal. asphaltic oil, 190,157 lb. reinforcing steel, 29,226 cu.yd. crushed stone surfacing, $322,477; 15.82 mi. State Highway 1, 44 acres clearing and grubbing, 2,296.6 cu.yd. Class A and 118.3 cu.yd. Class B concrete, 78,906 gal. asphaltic oil, 3,155 cu.yd. cover material, 244,920 lb. reinforcing steel, $453,033; 1.95 mi. Bankhead Highway, 9,376 cu.yd. borrow and 7,373 cu.yd. roadway excav., 80.9 cu.yd. Class A and 21.1 cu.yd. Class B concrete, 6,669 lb. reinforcing steel, 7,875 cu.yd. crushed stone, $91,200. Nagle-Witt-Rollins Eng. Co., co. engrs.

Tex., Canagdian—Hemphill Co. voted $50,000 bonds to grade, surface and drain state highways, and lateral roads, sandclay and gravel. Hess & Skinner, Southwestern Life Bldg., Dallas, engrs.

Tex., Corsicana—Navarro Co., plans paving, .87 mi. State Highway 1, 16 ft. wide, concrete, Kerens Dist. $30,000. W. F. Hutson, Waco, state div. engr.

Tex., Dallas—Voted $1,250,000 bonds to pave various streets, bitulithic, bituminous concrete, etc. G. D. Fairtrace, city engr.

Tex., El Paso—Election Oct. 11, $240,000 bonds, street paving and improvements. W. C. Stewart, city engr.

Tex., Henrietta—Clay Co. election Oct. 18, $2,000,000 bonds, gravel surfacing and draining 70 mi. state and 50 mi. county highways. R. Loftin, co. judge.

Tex., Vernon—Wilbarger Co. election Oct. 29, $600,000 bonds; 6 mi. concrete road, gravel and sand clay roads, rein.-con. drainage structures. J. B. Naboro, co. engr.

Okla., Clinton—Will soon take bids paving 50 blocks, Benham & Mullergren, Firestone Bldg., Kansas City, Mo., consult. engrs. Noted Aug. 25.

Okla., Hooker—Making plans paving various streets, vitr. brick on concrete base. $34,000. Ruckel Eng. Co., Hutchinson, Kan., engrs.

Streets and Roads (Continued)

Okla., Mangum—Bd. Comrs. making plans paving Street Impvt. Dist. 2. $75,000. Benham & Mullergren. Firestone Bldg., Kansas City, Mo., consult. engrs.

Col., Buttes—State Highway Dept., Denver, making plans gravel road approaches to bridge across Fountain River, here. $45 000. L. D. Blauvelt, State Museum Bldg., Denver, engr.

Wash., Seattle—Making plans paving 6 blocks Railroad Ave. from Madison to Pike Sts., 66 ft. wide, wood blocks, on creosoted piling foundation. $140,000. A. H. Dimock, city engr.

Ore., Klamath Falls—Will take soon bids grading, curbing, building 6 in. concrete sidewalks and paving various streets with asphaltic concrete or bitulithic, $92,155; concrete, $96,755. D. J. Zumwalt, city engr.

Cal., San Diego—Receives bids latter part of November, paving, curbing, grading and laying lateral sewers, Newport Ave., Voltaire and De Foe Sts., Mission, West Pt. Loma and Pt. Loma Blvds., 491,259 sq.ft. Willite or asphaltic concrete, to be laid in two courses of 3 and 1½ in. respectively. $150,000. F. A. Rhodes, City Hall, engr.

BIDS DESIRED

N. Y., Long Island City—Oct. 18, by M. E. Connolly, pres. Queens Boro., 68 Hunterspoint Ave., regulating, grading and otherwise improving Jamaica Bay Blvd. from point 1,436 ft. south of center line of Sheridan Ave. to southerly U. S. bulkhead line of Jamaica Bay excluding those portions to be privately graded, etc., 4th and 5th Wards.

Pa., Ebensburg—Oct. 12, by R. C. Wertz, secy. Southmont Boro., or Controller Cambria Co., (Ebensburg), 7,403 ft. highway from Johnstown, 8th ward, to Millcreek Rd. S. E. Dickey & Co, 809 Johnstown Trust Bldg., Johnstown, engr.

Pa., Johnstown—Oct. 10, curbing, grading, laying sanitary and storm sewers and paving D St., also laying storm sewer and paving Middle Taylor Rd. from Iron St. to city line, vitr. brick on concrete base. $50,000. H. L. Wilson, City Hall, engr.

North Carolina—Oct. 10, by State Highway Comn., at div. office Wilmington, clearing, grubbing, grading, draining 7.64 mi. State Project 541, Pender Co., 14 acres clearing and grubbing, 109,000 cu.yd. common excav. and borrow, etc. $34,000. C. M Upham, Raleigh, engr.

North Carolina—Oct. 10, by State Highway Comn, Raleigh, grading, draining and paving 5.67 mi. State Project 601, Halifax Co., 37,500 cu.yd. common excav. and borrow, 2,800 cu yd. clay gravel sub-base, 59,930 cu.yd. penetration macadam, 380 cu. yd. Class A concrete, 35,310 lb. reinforcing steel, etc., $120,000; 6.91 mi. State Project 558, Tyrrell Co., 13 acres clearing and grubbing, 93,200 cu.yd. borrow and drainage ditch excav., 14,230 cu.yd. topsoil, 7,895 sq.yd. concrete paving, 302 cu.yd. Class A and 99 cu. yd. Class B concrets, 30,220 lb. reinforcing steel, etc., $108,000. Noted July 7.

Florida—Oct. 20, by State Rd. Dept., Tallahassee, paving 9.89 mi. State Rd. 1, Federal Aid Project 24, between Lake City and Baker Co. line, Columbia Co., bituminous macadam on compacted rock base, $300,000. Alternate bids on concrete, grouted brick, asphaltic concrete, sheet asphalt and rock asphalt. J. A. Mortland, state engr.

Alabama—Oct. 26, by State Highway Comn., Montgomery, grading, draining and gravel surfacing 5.36 mi. Selma-Mobile Rd., between Catherine and Kimbrough, Mobile Co. 6 acres clearing and grubbing, 29,048 cu.yd. common excav., 12,455 cu.yd. gravel, 11,000 cu yd. additional ½ mi. haul, 184.84 cu.yd. Class A and 42.77 cu.yd. Class B concrete, 14.863 lb. reinforcing steel, etc. W. S. Keller, state highway engr.

Mich., Ionia—Oct. 11, by State Highway Dept. Lansing, grading and surfacing 9 mi. Assessment Dist. Rd. 352, Sects. 1-C and 2 Ionia Co., 84,440 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., L'Anse—Oct. 14, by State Highway Dept., Lansing, grading and surfacing 5.682 mi. State Aid Project 3, Sect. C-3, Baraga Co., 9 000 cu.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Ill., Waukegan—Oct. 10, at office C. E. Russell, Lake Co. supt. highways, Court House, grading and paving Rand Rd., Sect. S-15d; grading Lake Villa-Fox Lake Rd., Sect. V-15d; adv. this issue.

Ia., Adel—Oct. 10, by Auditor Dallas Co., grading 10.846 mi. roads east and west of Dallas Center, Primary Rd. Project 195, 69,955 cu.yd. excav.

Ia., Webster City—Oct. 12, by Hamilton Co., gravel surfacing 14 mi. primary road from here east to county line, 23,306 cu.yd. gravel; grading and draining 6 mi. road from Jewell south, 40,958 cu.yd. excav., 48,288 ft., 6 8-in. tile and 40 tile intakes. $28,000. H. Little, Webster City, engr.

Minn., Duluth—Oct. 28, by St. Louis Co., paving 6 mi. State Rd. 1, between Duluth and Northeastern Minnesota R.R., 65,000 sq.yd. concrete; surfacing 14 mi. State Rd. 1, from St. Louis Co. line to Central Lakes, 134,000 sq.yd. concrete. $222,000 and $518,000 respectively. R. W. Acton, Court House, engr.

Mo., Kansas City—Oct. 11, paving Wyoming St., vitr. brick on concrete base. $25,000. R. Waddell, City Hall, engr.

Okla., Ada—Oct. 11, by Bd. Comrs., paving Mississippi Ave. from Main St. to Frisco Railroad, concrete. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., consult. engrs. Noted Sept. 15.

Okla., Okmulgee—Oct. 11, by Okmulgee Co., c/o G. E. Morton, clk., concrete paving 5.8 mi. Co. Rd. Project 2. $100,000. R. R. Tway, Okmulgee, engr.

California—Oct. 17, by State Highway Comn., Forum Bldg., Sacramento, paving with concrete 9.4 mi. highway between west boundary and 1 mi. north of Keystone, Tuolumne Co.; grading 2 mi. highway between west city boundary and Pine St. in Susanville, Lassen Co. A. B. Fletcher, state highway engr. Noted Sept. 22.

BIDS RECEIVED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., Queens Subway Bldg., regulating and paving Roosevelt Ave. from 5th St. to Junction Ave., 2nd Ward, from H. J. Mullen Contg. Co., Fulton St. and Twombly Pl., Jamaica, $70,547, A. A. Johnson Corp., Queens Blvd., $72,073, F. J. Clancy, $73.726; Roosevelt Ave. from Junction Ave. to angle point east of Albertis Ave. from Cleveland Trinidad Paving Co., Flushing, $17.702, W. P. McDonald Constr. Co., 618 Union St., Brooklyn, $20,050, Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $20.225. Noted Sept. 22.

Pa., Phila.—Paving (1) 7th and 10th Sts., (2) Meadow St., (3) 5th St. from South to Wharton Sts., (4) Urbana St., also 5th St. from Walnut to South Sts., (5) Thompson and 2nd Sts., (6) Ritner and 18th Sts., (7) Capitol, Dickenson, Tasker, Woodstock and 22nd Sts., (8) Cambria and 12th Sts., (9) Mountain, Pierce and Watkins Sts., (10) Venango St. (granite block), (11) Venango St., (asphalt), (12) Brandywine, Wallace and 27th Sts., (13) Ontario St., (14) Addison and Fulton Sts., (15) Allegheny, Hope, Madison and Miller Sts., (16) Master, Olive and 27th Sts., (17) Lawrence St., (18) D St., (19) Wyoming Ave., (20) Torresdale Ave., (21) Eleanor and Rockland Sts., (22) Limekiln Pike, (23) Park Ave., (24) Van Dike St., (25) 56th St., (26) Springfield Ave., (27) Marvine St., (28) Magee St., (29) 10th St., (30) 66th Ave., (31) Rector St., from Fish-Rutherford Inc., Real Estate Trust Bldg., (1) $25,972, (2) $5,314, (3) $29,983, (4) $25,968, (5) $16,976, (6) $22,988, (7) $22,763, (8) $44,968, (9) $21,742; R. Lombardi, Lincoln Bldg., (1) $25,862; Union Paving Co., 30th and Spruce Sts., (1) $24,697, (2) $5,291, (3) $29,138, (4) $25,348, (5) $16,300, (6) $21,233, (7) $19,400, (8) $41,872 (11) $9 322, (12) $22,971, (13) $26,836, (14) $3,944, (15) $10,023, (16) $29,024, (17) $35.762, (18) $14,965, (20) $63,033, (25) $6,982; United Paving Co., Colonial Trust Bldg., (2) $5,244, (5) $17,542, (9) $19,173, (13) $24,174, (27) $5,210; Ryan Constr. Co., Real Estate Trust Bldg., (3) $31,644, (4) $26,843, (8) $41,264, (10) $22,781; Eastern Paving Co., Colonial Trust Bldg., (6) $21,974, (11) $9,471, (12) $23,762, (14) $3,838, (15) $10,962, (16) $28,715, (17) $29.354, (18) $15,871, (19) $34,650, (20) $64.113, (21) $11,850, (22) $7,686, (23) $4,523, (24) $3,880, (25) $7,012, (26) $6,357; F. T. Buckins, Jr., Kensington and Deal Sts., (7) $21.160, (9) $18,215, (10) $24,652, (13) $25,692; J. J. McHugh, 1617 Race St., (10) $23.962; Barber Asphalt Paving Co., Land Title Bldg., (11) $9,688, (14) $3.876, (15) $9,373, (16) $29,605, (17) $32,250, (18) $13,620, (19) $34.760 (20) $65,973, (21) $12,274, (22) $7,952, (23) $4,797, (24) $3965, (25) $7,562, (26) $6,458; T. L. Flannigan, 1204 East Montgomery St., (12) $21,377, (28) $3,200; Mack Paving Co., Nicetown Lane and Chelten Ave., (19) $38,543, (21) $13,962, (22) $8,593, (23) $4,673, (26) $6 588, (27) $4,145; A. J. Anderson, Phila., (27) $6,872, (31) $5,116; Morrison & Meade, 4345 North 7th St., (28) $1,870; J. McCool, Phila., (28) $3,567; F. Mark Constr. Co., Commonwealth Trust Bldg., (29) $1,552; T. Connor, 3329 North 5th St., (29) $1,245, (30) $563; G. B. Wenner, Phila., (30) $588; D. McMahon, Germantown Ave., (29) $1,763, (30) $454; Centroni & Mezzola, Lincoln Bldg., (31) $5,473.

Pennsylvania—State Highway Dept., Harrisburg, opened bids Sept. 27, paving (1) 10,576 ft., (2) 15,067 ft., Armstrong Co., (3) 2,545 ft., (4) 7,015 ft., (5) 5,063 ft., (6) 5,919 ft., (7) 2,990 ft., Beaver Co., (8) 36,488 ft., (9) 29,308 ft., (10) 21,098 ft., (11) 20,438 ft., Butler Co., (12) 14,832 ft. Cameron Co., (13) 1,826 ft., (14) 9,604 ft. Chester Co., (15) 12,392 ft. Clarion Co., (16) 24,787 ft., (17) 18,161 ft., Crawford Co., (18) 2,999 ft. Cumberland Co., (19) 5,468 ft., (20) 1,635 ft., Erie Co., (21) 6,571 ft. Fayette Co., (22) 12,687 ft. Indiana Co., (23) 2,100 ft. Jefferson Co., (24) 22,538 ft. Lackawanna Co., (25) 3,220 ft. Lawrence Co., (26) 1,613 ft. Mifflin Co., (27) 826 ft. Schuylkill Co., (28) 14,071 ft. Westmoreland Co., (29) 1,279 ft. (30) 21,250 ft. Wyoming Co., from McNeil Co., 6120 Jenkins Arcade Bldg., Pittsburgh, (1) $99,210, (8) $320,900, (9) $239.749, (10) $180,956; Anderson Constr. Co., Parnassus, (1) $99,461; J. Herrmann, 1305 Jefferson St., Latrode, (1) $99,985; L. H. Hileman Constr. Co., 217-218 First Natl. Bank Bldg., New Kensington, (2) $144,700, (15) $123,866, (23) $21,591; Clark Constr. Co., Hastings, (2) $149,475, (15) $122,231; J. C. Devine Co., Alliance, O., (2) $152,841, (4) $71,916, (5) $56,457, (6) $54,406, (7) $33,264, (17) $152,143, (25) $54,796; S. B. Markley, 1301 Allegheny St., New Brighton, (3) $23,324, (6) $53,226, (7) $37,726; H. V. Kirker Co., 317-9th St., Beaver Falls, (3) $23,120, (4) $76,164; McLean Constr. Co., Bellaire, O., (4) $74,291, (6) $54,527; G. S. White Co., 7119 Jenkins Arcade Bldg., Pittsburgh, (5) $55,132, (7) $36,029, (28) $149,832; S. Gamble Co., Glass St., Carnegie, (8) $326,067, (16) $213,165; C. E. Walter, Butler, (8) $278,411, (10) $187,197, (11) $195,926; D. W. Challis & Sons, Inc., 420 Centennial Ave., Sewickley, (9) $236.744, Connell, Laub & Bracht, 808 North Main St., Dayton, O., (9) $221,202, (10) $161,511 (11) $199.348; Kavanaugh DeNiro Constr. Co., 407-408 Mahoning Bank Bldg., Youngstown, O., (11) $201,296; Miller Constr. Co., Punxsutawney, (12) $137.696; L. B. Wilson, 1514 Diamond St., Phila., (13) $31,813; V. Di Francesco, 17 Mifflin Ave., Lianarch, (13) $29,596; G. Metzger, Jr., Emporium, (12) $137,902; Smethport Constr. Co., 49 Main St., Union City, (12) $138,930; Dunleavy Bros., 9 Pennegar Bldg., Coatesville, (13) $31,419, (14) $70,608; B. Foster Co., 20th and Venango Sts., Phila., (14) $70,427, (16) $215,893; W. I. Pollock and W. C. Johnson, Downington, (14) $69.279; Minns Bros., 601-1st St., Dubois, (15) $128.229, (23) $21,798; McDermott & Hannon, Niles, O., (16) $217,894, (25) $52,510; Wester Bros., 76 East Indianola Ave., Youngstown, O., (17) $145,773; D. Schoentag, Meyersdale, (17) $141,171; Burgess & Dorrier, Scottsville, Va., (18) $24,193; Weller Constr. Co., 816-14th St. N. W., Wash., D. C. (18) $26,102; Bethlehem Eng. & Contg. Co., 307 Wilbur Trust Co. Bldg., Bethlehem, (18) $29,161; C. H. Fry Constr. Co., Erie, (19) $50,627; J. Roth, trading as Good Rds. Constr. Co., P. O. Box 524, Erie, (19) $54,000; E. M. Love & Son, Corry, (20) $29.170; Warren Bros. Co., 9 Cambridge St., Boston, Mass., (20) $27,924, (30) $230.687; Petriello Bros. & Co., 3 Snowden Bldg., Brownsville, (21) $73,551; Conmar Constr. Co., Fayette City, (21) $80,379; T. Arrigo, Charleroi, (21) $81,043; McClure & Bingner Co., 355 Market St., Johnstown, (22) $155,052; M. Bennett & Sons, Indiana, (22) $156,703; MacCrady Bros. Co., 328-6th Ave., Braddock, (22) $157,953; J. Weisner, St. Marys, (23) $20,279; F. J. Groman & Sons, Bethlehem, (24) $204,846; F. G. Fowler Constr. Co., Mt. Kisco, N. Y., (24) $200,000; Continental Contg. Co., Knickerbocker Bldg., Baltimore, Md., (24) $193,174, (29) $28,556, (30) $196,397; W. McIntyre Sons, Inc., Sharon, (25) $56,595; J. M. Hutchison, Greenwood Ave., Altoona, (26) $11,371; S. Hawke & Son, Lewistown, (26) $18,556; A. E. Laroche, Hamburg, (27) $29.134; J. Maguire, South 6th St., Mahanoy City, (27) $31,702; Gillespie & Franklin, 906 Crozier

Streets and Roads (Continued)

Bldg., Phila., (27) $31,548; Corrado & Galiardi, Colonial Natl. Bank B'dg., Connellsville, (28) $141,665; Penn Contg. Co., Carrolltown, (28) $150,570; Neymyer Bros., 1416 East 4th St., Bethlehem, (29) $33,189; R. D. Richardson Constr. Co., 828 Connell Bldg., Scranton, (29) $35,708; Clairborne, Johnston & Co., Inc., 910 Garrett Bldg., Baltimore, Md., (30) $234,593. Noted Sept. 15.

Virginia—State Highway Comm., Richmond, clearing, grubbing, grading draining and topsoiling (1) 8.29 mi. between Five Fork and Patrick Co. line, Virginia Aid Project 133 A, Henry Co., (2) 11.42 mi. between Gladys and Brookneal, Virginia Project 147, Campbell Co.; clearing, grubbing, grading and surfacing (3) 6.48 mi. between Milford Mills and Greenwitch, 12 ft. wide, macadam, Virginia Project 130, Prince William Co.; clearing, grubbing, grading, draining and paving (4) 3.45 mi. between Farmville and Prospect, concrete, Virginia Project 76 A, Prince Edward Co.; clearing, grubbing, grading, draining, surfacing and bridging (5) 12.9 mi. between Jacksons Ferry and Hillsville, macadam, Virginia Project 111, Carroll and Wythe Counties; grading, surfacing and draining (6) 3.5 mi. from New Market toward Luray, 12 ft. wide, macadam, Virginia Project 120, Shenandoah Co., (7) 1.78 mi. between Tinkers Creek and Cloverdale, macadam, Virginia Project 149, Botetourt Co., (8) 1.55 mi. between Norton and Big Stove Gap Rd., concrete, Virginia Project 131, Wise Co., (9) 4.42 mi. between Barbarsville and Green Co. line, Virginia Project 135, Orange Co., (10) 7.45 mi. between Galax and Woodlawn, Virginia Project 123, Carroll Co., from Jamison Bros., Rustburg, (1) $36,006, (2) $35,426, (5) $339,687; White & Simpson, Chatham, (1) $39,494, (2) $36,579; A. M. Francisco, Virgilina, (1) $40,625; Battershill & Goode, Virginia, (2) $35,161, (10) $113,087; Hyde & Baxter, 711 13th St., N. W., Wash., D. C., (3) $93,393; Raines Contr. Co., Bremo Bluff, (3) $103,213, (9) $59,486, (10) $122,203; L. R. Colbert, Fredericksburg, (3) $118,841; W. W. Buxley & Co., Roanoke, (4) $92,444; W. O. Burton, Richmond, (4) $98,923; A. W. McClay, 2400 Grove Ave., Richmond, (4) $99,593, (9) $54,001; Pace Constr. Co., Roanoke, (5) $300,154, (6) $72,479; Albert Bros., Shawsville, (5) $304,098; Lynchburg Constr. Co., Point-of-Rocks, Md., (6) $84,821, (7) $33,190; Vaughan & Griggs, Roanoke, (7) $30,085; Pendleton Constr. Co., Wytheville, (7) $31,798; J. P. Harvey, Lynchburg, (8) $69,656; C. S. Luck & Son, Brooke Rd., Richmond, (9) $50,943, (10) $124,680. Noted Sept. 1.

North Carolina—State Highway Dept., at div. office, Asheville grading, draining and surfacing 13.8 mi. State Project 557, Madison Co., from R. H. Wright & Son, Asheville, $176,841; O'Brien Constr. Co., Balsam, $192,146; R. E Martin, Mountain City, Tenn., $212,805. Noted Sept. 8.

O., Cleveland—Comrs. Cuyahoga Co. paving Lloyd Rd., 1,170 cu.yd. 6 in. concrete base, 3,820 cu.yd. earth excav. and 440 sq.yd. concrete wearing surface, etc., from Judson Constr. Co., Society for Savings Bldg., $39,285.

O., Cleveland—Paving Elbow Bassett Rd., from Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria, asphalt, $94,739; Lake Erie Paving Co., Society for Savings Bldg., concrete, $105,096; Baldwin Bros., 4500 Euclid Ave., $105,537.

Mich., Detroit—For paving alleys 1390 (1) to 1398 (9) from T. E. Currie, 20 McGraw Bldg., (1) $8,079, (6) $7,334; Otis Cement Constr. Co., 806 Hammond Bldg., (4) $1,875, (5) $1,742, (8) $1,731, (4) $1,809, (5) $1,815, (6) $7,423, (7) $2,255, (8) $1,805; A. F. Lester, 309 Sun Bldg., (1) $7,322, (5) $1,607, (6) $7,174, (8) $1,598; DeLisle & Cooper, 402 Ford Bldg., (2) $4,781, (3) $3,217; R. J. Powelson, 6445 Iroquois Ave., (2) $4,781, (3) $3,202; Reading Corp. 413 West Fort St., (4) $1,894; F. H. Davis, 1838 Penobscot Bldg., (4) $1,875, (5) $1,742, (8) $1,731, (9) $1,960; F. Porath, Jr., 365 Free Press Bldg., (7) $2,220, (9) $1,870; G. Nunn, 6409 3d Ave., (7) $2,167, (9) $1,911.

Tex., Cameron—Milam Co. clearing, grubbing, grading, surfacing and draining 8.21 mi. State Highway 44, from Kurkendall & Shelton, Temple, $43,842; W. C. Moore & Sons, Halletsville, $45,842; W. T. Hutto, Hutto, $47,843. Noted Sept. 15.

Tex., Canton—Van Zandt Co., grading, surfacing and draining Dixie Highway, State Highway 15, from T. A. Griffin, Ft. Worth, $85,157; Boyd & Alvis, Winnsboro, $87,157; Womanck Constr. Co., Sherman, $87,162. Noted Sept. 22.

Tex., Crockett—Houston Co. clearing, grubbing, grading, sand clay surfacing and draining 13.73 mi. State Highway 21, from Smith Bros., Crockett, $125,596; Cook & Arrington, Crockett, $132,836; McClung Constr. Co., Cleburne, $130,887. Noted Sept. 15.

Tex., Hillsboro—Hill Co. grading, gravel surfacing and draining 26 mi. Colorado to Gulf Highway and Kings Trail Highway, 13,357 cu.yd. borrow, 146,256 sq.yd. gravel, etc., from Womack Constr. Co., Sherman, $54,389; Allhands & Davis, Wills Point, $55,480; Tibbetts Constr. Co., Box 179, Mineral Wells, $56,320.

Tex., La Grange—Fayette Co. gravel surfacing 11.27 mi. Highway 3, from Fayette Co., c/o J. P. Ehlinger, co. judge, La Grange, $81,058.

Colorado—State Highway Dept., Denver, gravel surfacing 3.158 mi. road between Craig and Hayden, Federal Aid Project 188, Moffat Co., from Hinman Bros., Kremmling, $24,761; Peterson, Shirley & Gunther, 737 1st Natl. Bank Bldg., Denver, $25,745; E. O'Neil, Craig, $26,654. Noted Sept. 22.

Utah, Ogden—Paving 4 blocks 25th St. and Tyler Ave., from Gilkerson Constr. Co., Ness Bldg., Salt Lake City, concrete, $57,950; P. J. Moran, Inc., 850 South 2d St. W., Salt Lake City, bitulithic, $59,320.

California—State Highway Comn., 515 Forum Bldg., Sacramento, paving 1 mi. highway between King City and Salinas River, (1) 1,000 cu.yd. excav., (2) 2,000 tons asphaltic concrete, from Grant Smith & Co., Flood Bldg., San Francisco, (1) $1.25, (2) $12.42, total $26,090; H. Crummey, 357 12th St., Oakland, (1) $2.75, (2) $13.90, total $30,550. Noted Sept. 8.

CONTRACTS AWARDED

R. I., East Providence (Providence P. O.)—Paving 5,200 ft. North Bway. on 4,400 ft. Massasoit Ave., bituminous asphalt, to J. McCormack & Sons, Taunton Ave., $80,083.

Connecticut—C. J. Bennett, state highway comr., 240 Farmington Ave., Hartford, 4,860 ft. 7 in. waterbound macadam highway in New Milford, 18 ft. wide, to Osborne & Barnes, Odd Fellows Bldg., Danbury, $29,224; 6,050 ft. 5 in. native stone macadam highway in Harwinton, 18 ft. wide, to Mascetti & Holley, 501 South Main St., Torrington, $16,709. Noted Sept. 22.

N. Y., Attica—Paving Main and Market Sts., rein.-con., to Oatka Eng. & Constr. Co., Warsaw, $61,000.

N. Y., New York—To Uvalde Asphalt Paving Co., 1 Bway., regulating and repaving 2nd Ave., etc., $3,044, East 70th St., $33,457, East 71st St., $33,45[illegible] to Asphalt Constr. Co., 2197 Madison Ave., Grove St., etc., $30,621, Haven St., $4,617; to W. J. Fitzgerald, 547 West 45th St., 5th Ave., $24,476. Noted Sept. 29.

N. J., West Hoboken—Paving 4 blocks Elm St. between Bergenline and Summit Aves., bituminous concrete to T. A. Capone, Bergenline Ave. and Traphagen St., $31,450.

W. Va., Madison—Boone Co. grading, draining and surfacing 4 mi. Clothier-Sharples Rd., to A. Keathley, Cofoco, $68,779. Noted Sept. 15.

O., Cleveland—Paving East 135th St. from Kinsman Rd. to Abell Ave., 3,050 cu. yd. excav., 57,000 sq. ft. 5 in. brick on 6 in. concrete base, etc., to A. M. Pejsa Constr. Co., East 93rd St., $37,696; East 105th St. from Union Ave. to Aetna Rd., 2,140 cu.yd. earth excav., 4,125 sq.yd. brick on concrete base, etc., to Baldwin Bros., 4500 Euclid Ave., $27,229. Noted Sept. 8 and Aug. 18.

Mich., Mt. Clemens—State Highway Dept., Lansing, grading, draining and surfacing State Trunk Line Rd. 27-14, Macomb o., 9,341 cu.yd. excav., 12,437 sq. yd. concrete, to T. E. Currie, 20 McGraw Bldg., Detroit, $35,720.

Wis., Madison—Dane Co. Rd. and Bridge Com., gravel surfacing Middleton-Sauk City Rd., 15,000 sq.yd. gravel to Gunnison & Colvell, 2243 Division St., Madison, $25,350; Waterloo-Marshall Rd., 5,500 cu.yd. gravel, to G. Fitton & Son, 827 East Gorham St., $9,295.

Ia., Des Moines—Paving and resurfacing West 31st St., concrete and asphalt, to Wright Constr. Co., 211 Flynn Bldg., $25,000. Noted Sept. 15.

Ia., Des Moines—Paving Ingersoll Ave. from West 28th to West 38th Sts., sheet asphalt, to J. Horrabin & Co., 1422 Walnut St., $2.48 per sq.yd. Noted Aug. 18.

Ia., Eldora—Paving various streets 30,000 sq.yd. reinforced vibrolithic, 8,500 lin. ft. curb and gutter, to Dearborn Constr. Co., Waterloo Savings Bank Bldg., Waterloo, $2.97 per sq.yd. Noted Sept. 15.

Minnesota—State Highway Dept., 920 Guardian Life Bldg., St. Paul, grading 6 mi. State Highway 10, between Cleveland and St. Peter, Le Sueur Co., 125,000 cu.yd. excav., to J. Sampson, Faribault, $0.22 per cu.yd. Noted Sept. 8.

Minn., Duluth—St. Louis Co., grading, grubbing and ditching 5 mi. State Rd. 35 between Hibbing and Chisholm, to E. F. Reemer, Hibbing, $73,988; 5 mi. State Rd. 3 between city limits and Carlton Co. line, to A. Guthrie & Co., 366 Jackson St., St. Paul, $64,981. Noted Sept. 22.

South Dakota—State Highway Comn., Pierre, grading and draining 19.98 mi. Yankton-Salem Rd., Federal Aid Project 77, 24 ft. wide, Yankton Co., to Lamoreaux Bros. Co., Brandeis Theatre Bldg., Omaha, Neb., $59,350. Noted March 3.

South Dakota — State Highway Comn., Capitol, Pierre, grading and draining 14.18 mi. roads, 24 ft. wide, Beadle Co., 94,168 cu.yd. excav., etc., to Dowd Bros. & Schreiber Eng. & Constr. Co., Watertown, $40,835.

S. D., Brookings—Brookings Co., grading 11 mi. De Smet-Brookings Rd., 114,449 cu. yd. excav., 45,481 cu.yd. overhaul, etc., to A. L. Larson Constr. Co., Sioux Falls, $41,599.

Wyoming—State Highway Dept., Cheyenne, gravel surfacing 10.3 mi. Glenrock-Douglas Rd., Federal Aid Project 74, 16 ft. wide, Converse Co., to Sharrock & Purcell, Portland, Ore., $54,515.

Montana—State Highway Dept., Helena, U. S. Forest Dept., and Ravalli Co., grading 15.28 mi. Skalkaho Rd. between Anaconda and Hamilton, Ravalli Co., to Clifton, Applegate & Toole, Anaconda, $172,177. Noted Sept. 15.

Montana—State Highway Dept., Helena, paving 6 mi. Yellowstone Trail, Federal Aid Project 82, Gallatin Co., 49,000 cu.yd. excav. and 67 644 sq.yd. bituminous macadam, to Pioneer Constr. Co., Bozeman, $188,022. Noted Aug. 18.

Mo., Jefferson City—Paving Madison Ave., vitr. brick on concrete base, to Pope Constr. Co., Jefferson City, $50,000.

Mo., Kansas City—Paving Jackson Ave., asphalt on concrete base, to J. Welch, 122 East Gillham Rd., $25,000.

Mo., St. Louis—Improving street, Letting 1237, brick and asphalt on concrete base, to Granite Bituminous Paving Co., Ry. Exch. Bldg., $27,387. Noted Sept. 8.

Mo., St. Louis—Paving alleys, Lettings 1212-1217 inc., vitr. brick on concrete base, to F. A. Stiers, 2267 South Kingshighway, $38,400. Noted Sept. 1.

Tex., Edinburg—Hidalgo Co. to W. L. Pearson Constr. Co., Houston, clearing, grubbing, grading, surfacing and draining 29.62 mi. State Highway 12, $168,407 does not include caliche surfacing to be furnished by county $9,200 nor 10 per cent for engineering and contingencies; 4.3 mi. State Highway 12, $25,291, does not include gravel surfacing to be furnished by county $30,000 nor 10 per cent for engineering and contingencies. Noted Sept. 29.

Wash., Seattle—Paving 43rd Ave., N. E., et. al., to J. L. Smith, Pioneer Bldg., $38,796; 11th Ave., N. E., et. al., to Fiorito Bros., New York Blk., $45,226. Noted Sept. 29.

California—State Highway Comn., Forum Bldg., Sacramento, paving 1.7 mi. Highway, Div. 4, Route 2, Sect. C between Gilroy and Carnadero Creek, Santa Clara Co., 3,850 cu.yd. Class A Portland cement concrete pavement, to R. J. Blanco, Vallejo, $6.25 per cu.yd., total $24,837; undergrade crossing of Northwestern Pacific Railroad, near Arnold, Div. 1, Route 1, Sect. G, Mendocino Co., (1) 265 cu.yd. Class C Portland cement concrete, (2) 4,500 cu.yd. excav., to California Constr. Co., San Rafael, (1) $18.95 per cu.yd., (2) $1.89, total $13,527.

California—State Highway Comn. 515 Forum Bldg., Sacramento, surfacing 6 mi. highway between southern boundary and Ceres, Div. 3, Route 4, Sect. A, Stanislaus Co., 7,200 tons asphaltic concrete, to J. A. Costello, Jr., 1083 Shotwell St., San Francisco, $49,176; 4.8 mi. highway between Fullerton and northern boundary, Div. 7, Route 2, Sect. F, Orange Co., 6,660 cu.yd. Class A Portland cement concrete, 2,670

Streets and Roads (Continued)

ton asphaltic concrete surface, 2.8 mi. to be paved with cement concrete and 2 mi. with asphaltic concrete, to Riley & Peterson, San Diego, $54,494; 4.2 mi. highway between Delhi and northern boundary, Div. 6, Route 4, Sect. D, Merced Co., 4,560 ton asphaltic concrete, to J. A. Costello, Jr., 1083 Shotwell St., San Francisco, $30,780; 10.7 mi. highway between East High Line Canal and New County Well, Div. 7, Route 27, Sect. A, Imperial Co., to G. H. Oswald, Los Angeles; 4.3 mi. highway between Perry and Morgan Hill, Div. 4, Route 2, Sect. B, Santa Clara Co., 4,700 ton asphaltic concrete, to H. Crummey, 357 12th St., Oakland, $41,830; grading 9.3 mi. highway between Fairville and eastern boundary, Div. 4, Route 8 Sects. A and B, Sonoma Co., to Healy-Tibbitts Constr. Co., 9 Main St., San Francisco. Noted Sept. 8 and 15.

Cal., Los Angeles—Bd. Pub. Wks., grading, oiling, rolling and laying sidewalks, curbs and gutters on Coringa Drive between Aves. 54 and 51, 3,819 lin.ft. cement curbing, 29,445 sq.ft. concrete gutter, 12,706 sq.ft. cement sidewalk, 77,544 sq.ft. waterbound macadam, to B. D. Baucus, 173 West 43rd St., $39,162; paving and laying curb and gutters on Hoover St. between Manchester and Slauson Aves., to Tryon & Brain, 201 Tajo Bldg., $174,303. Noted Sept. 29.

B. C., Penticton—Canadian Pacific Ry., Windsor St., Montreal, Que., grading 20 mi. extension of Kettle Valley Ry. from here to Oliver, to A. E. Griffiin Co., Penticton, $100,000.

Industrial Works

PROPOSED WORK

Mass., Adams—H. C. Kaiser, Main St., soon lets contract 1 story, 70 x 100 ft., brick and concrete garage and service station, rein.-con. flooring, plain foundation, Main St. $40,000. Private plans.

Mass., Dedham—Dedham Motor Mart, Eastern Ave., soon lets contract 1 story, 80 x 130 ft., brick and concrete garage, rein.-con. flooring, plain foundation, Eastern Ave. $40,000. Private plans.

Pa., Phila.,—Egnal & Motusan Bros., 3rd and Berks Sts., plan 2 story, 74 x 120 ft., brick and steel garage, rein.-con. flooring, plain foundation, Woodstock and Berks Sts. $70,000.

Pa., Phila.—C. Goldman, 725 Walnut St., having plans prepared by H. B. Weldon, archt,, 10 South 18th St., and soon receives bids, 1 story, 54 x 200 ft. brick and steel garage, rein.-con. flooring, plain foundation, 406-408 South Front St., $60,000.

O., Cleveland—O. Uterhardt, 12203 Farrington Ave., had plans prepared 1 story, 40 x 90 ft. brick and steel garage, plain foundation, 3308 East 116th St. $40,000. Private plans.

Mich., Lansing—State Bd. Water and Electric Light Comrs. soon receives bids building power house. $5,000,000. Woodwell & Resler, 501-5th Ave., New York, archts. G. Aus, 244 Madison Ave, New York, engr.

Ill., Sterling—P. W. Kempster having plans prepared, 1 story, 50 x 142 ft. garage, brick and steel. $40,000. architects name withheld.

Wis., Hartford—Portz Malt & Grain Co. plans 50 x 90 ft. malt and grain plant. $100,000. J. Thorn, Hartford, engr.

Wis., Merrill—Merril Wood Products Co. plans 2 or 3 story, 60 x 100 ft. rein.-con., brick and steel factory, brick foundation, Main St. $50,000. Architect not selected.

Wis., Peshtigo—J. L. Chudacoff plans 2 story, 60 x 115 ft., knitting mill, rein.-con., brick and tile, brick foundation, Thompson St. $75,000. Architect not selected.

Ia., Oskaloosa — Plans hydro-electric power plant on Des Moines River, southwest of here. Project includes dam to furnish 4,000 h.p. T. H. Carlin, clk.

Kan., Parsons—Missouri, Kansas & Texas Ry., Ry. Exch. Bldg., St. Louis, Mo., plans 1 story, brick and steel reclamation plant. $166,000. A. L. Sparks, c/o owner, archt.

Mo., Kansas City—Superior Ice Co., c/o A. L. Williams, Lee Bldg., having plans prepared by B. B. Ryan, archt., c/o owner, 3 story, brick, stone and rein-con. plant, 2nd and Main Sts. $150.000.

Mo., St. Louis—J. Forshaw Stove & Heating Co, c/o J. Forshaw, pres., 111 North 12th St., plans 7 story, 25 x 100 ft., brick and rein.-con. factory, 109 North 12th St. $75,000. Architect not selected.

Mo., St. Louis—Polar Wave Ice & Fuel Co., c/o T. C. Muckermon, pres., Grand and Olive Sts., having plans prepared by H. G. Clymer, archt., Wainwright Bldg., 2 story, rein.-con., brick and steel plant, Gravois Ave. and Doolsey St. $500,000.

Utah, Salt Lake City—Utah Steel Corp. plans new blast furnace, sheet steel mill and additions to present mills. M. S. Rosenblatt, genl. mgr.

BIDS DESIRED

N. J., Mt. Holly—Oct. 20, by Folsom & Stanton, archts., 10 South 18th St., Phila., 1 story (ultimately 2 story) 100 x 200 ft. garage and service station, rein.-con., brick and steel, rein.-con. flooring, plain foundation, Washington and King Sts., here, for W. A. Jones. $70,000. Noted Sept. 22.

Pa., Harrisburg—Kaufman Underselling Store, 4 South 2nd St., receiving bids 3 story, 100 x 120 ft. concrete and brick storeroom building on Market Sq. $150,000. C. H. Lloyd, Suite 701-A, Telegraph Bldg., archt.

Pa., Phila.—Oct. 15, by A. Sabet, 3133 Frankford Ave., 1 story, 41 x 185 ft. brick and steel garage on Allegheny and Frankford Aves. $40,000. Private plans.

O., Cleveland — M .A. Gleason, 1625 Williamson Bldg., receiving bids 1 story, 90 x 109 ft., brick and steel garage, plain foundation, 6815 Superior Ave. $40,000. Private plans.

Wis., Milwaukee—Hanson & Phillips, Kinnickinnie and Logan Aves., receiving bids 1 story, 100 x 100 ft., brick and concrete garage, rein.-con. flooring, plain foundation, Kinnickinnie Ave. $40,000. Private plans.

Kan., Lawrence—Oct. 14, by Kansas University, 2 story, 63 x 110 ft., electric laboratory. $40,000. R. L. Gambell, 1415 Fillmore St., Topeka, archt.

Mo., Kansas City—Oct. 12, by G. Carmen, archt., Gumbell Bldg., 42 x 80 ft. ice plant, brick and steel, 20th and Washington Sts., for City Ice Co., 21st and Campbell Sts. $75,000.

Mo., St. Louis—Oct. 11, by St. Louis & San Francisco Ry., Frisco Bldg., 1 story, 40 x 123 ft., brick and steel machine shop, Chouteau Ave. Yards. $55,000. R. C. Stephens, c/o owner, archt.

BIDS RECEIVED

N. Y., Buffalo—J. N. Matthews Co., Washington and Exchange Sts., publishing house, Oak St., from Metz Bros. Co., 1295 Fillmore Ave., $385,000; White Constr. Co., 95 Madison Ave., New York, $394,500; Crooker and Carpenter, Niagara Life Bldg., $405,664. Noted Sept. 29.

Wis., Madison—University of Wisconsin, 1 story addition to service building and electric sub station, from Willis & Deason, Haves Blk., Janesville, $64,711; J. Findorff & Son, West Wilson St., $66,366; Wisconsin Constr. Co., 639 West Wilson St., $74,575. Noted Sept. 8.

CONTRACTS AWARDED

Mass., Boston—H. Frank, 819 Shawmut Ave., will build 1 story, 75 x 221 ft., brick and concrete garage and store, rein.-con. flooring, concrete foundation Shawmut Ave. $50,000. Work will be done by day labor.

Mass., Northampton—F. Girard, King St., will build 1 story, 100 x 125 ft., concrete, brick and steel garage, rein.-con. flooring, plain foundation, North St. Work will be done by day labor. Noted Sept. 8.

Mass., Somerville—Masury & Young Co., 196 Milk St., Boston, 3 story, 36 x 75 ft. oil testing and storage building, rein.-concrete, brick and steel,, rein.-con. flooring, concrete foundation, to Natl. Eng. Corp., 60 Federal St., Boston, $40,000.

R. I., Providence—H. M. Howe Co., 417 Fountain St., 1 story 60 x 130 ft. factory with 40 x 50 ft., all brick and timber, plain foundation, Fountain St., to C. I. Bigney Constr. Co., 357 Westminster St. $40,000.

R. I., Woonsocket—Lafayette Worsted Co., Hamlet Ave., 6 story, 136 x 246 ft., brick and timber addition to factory, plain foundation, Hamlet Ave., to O. D. Purington Co., Industrial Trust Bldg., Providence.

Conn., Putnam—New York, New Haven & Hartford R.R., New Haven, 1 story, 45 x 170 ft., brick and timber roundhouse, rein.-con. flooring, plain foundation, at freight yards, here, to H Wales-Lines Co., 134 State St., Meriden.

Md., Baltimore—Western Maryland Dairy Co., Linden Ave., 4 story, 100 x 165 ft., rein-con. dairy on Linden and Dolphin Sts, to G. A. Fuller Co., Amer. Bldg. $500,000. Noted Aug. 25.

Pa., Allentown—M. & G. Co., 3 story, 134 x 156 ft. and 2 story, 50 x 112 ft., concrete, brick and steel factory, rein.-con. flooring, plain foundation, to W. Steele & Sons, 17th and Arch Sts., Phila., $500,000.

Pa., Phila.—F. W. Tunnell & Co., 15 North 5th St., rein-con., brick and steel plant, rein-con. flooring, plain foundation, Wheatsheaf Lane and Gual Sts., to Austin Co., Bulletin Bldg. $150,000.

Pa., Phillipsburg— S & S Shirt Co., 3 story, 60 x 150 ft., concrete, brick and steel factory, rein-con. flooring, plain foundation, to Turner Constr. Co., 1713 Samson St., Phila. $150,000.

O., Cleveland — City Ice & Fuel Co., Cadillac Bldg., 1 story 52 x 75 ft. ice plant, brick, steel and concrete, rein-con. flooring, plain foundation, Addison Rd., to Younger & Farmer Co., 1670 Crawford Rd., $100,000. Noted Sept. 22.

O., Uhrichsville—Uhrichsville Knitting Mills Co. 3 story, 70 x 114 ft., brick and concrete factory, to D. W. McGrath & Sons, New 1st Natl. Bldg., Columbus, $50,000.

Mich., Detroit—Harper Hospital, John R St. and Martin Pl., 1 story, 84 x 106 ft., rein.-con., brick and steel power house, rein.-con. flooring, concrete foundation, to E. Winters, 725 Detroit Savings Bank Bldg.

Ill., Cicero—J. M. Host, 64 x 125 ft., brick and steel garage, to Stellwagon & Zuelsdorf, 1583 Claybourn St., Chicago, $50,000.

Ill., Moline—Moline Daily Ditpatch, 1509 3rd Ave. A., 2 story, 50 x 140 ft. publishing plant, rein.-con. and brick, to A. Carlson & Son, 25th St. and 3rd Ave., $150,000. Noted Sept. 22.

Wis., Milwaukee—Waukesha Mills Co., 338 5th St., 2 story, 80 x 100 ft. warehouse, brick and concrete, rein.-con. flooring, plain foundation, 5th St., to E. Hahn & Son, 723 Prairie St., $40,000.

Wis., Wauwatosa—W. H. Schmidt & Sons Co., State St., 2 story, 60 x 70 ft. warehouse, brick and wood, plain foundation, to Bennett Constr. Co., 403 Grand Ave., Milwaukee, $40,000.

Cal., Los Angeles—Angelus Sanitation Can Machine Co., 282 San Fernando Bldg 1 story 90 x 160 ft. brick and steel factory, to Austin Co., 16112 Euclid Ave., Cleveland, O., $60,000.

Cal., Los Angeles—Swift & Co., 922 East 1st St., 1 story, brick and concrete addition to packing plant, to R. E. Milsap, Marsh-Strong Bldg., $52,000. Noted Aug. 25.

Que., Montreal—Bramsons Auto Service Ltd., Philips Sq., 6 story, 50 x 90 ft. rein.-con. garage on Ontrio St., to J. E. Wilder, 321 Bleury St., $100,000.

Que., Montreal—S. L. Contant, 590 Marie Anne St. E., 4 story, 100 x 108 ft. rein.-con. warehouse on Marquette St., to O. Archambault, 610 Park Lafontaine, $90,000.

Que., Montreal—Molsons Brewery, 906 Notre Dame St. E., to E. G. M. Cape & Co., 10 Cathcart St., 4 story, rein.-con., brick and steel brewery on Notre Dame St. E., $144,800; 6 story, 91 x 124 ft. rein.-con. warehouse on Voltiguear St., $119,000. Noted Sept. 29.

Buildings

PROPOSED WORK

Mass., Boston—Office—Flagg Estate, c/o Parker, Thomas & Rice, archts., 110 State St., having plans prepared, 8 story, probably brick, on Winter St.

Mass., Foxboro—Ward—Comn. Mental Diseases, 109 East State House, Boston, having plans revised by McLaughlin & Burr, archts., 88 Tremont St., Boston, 2 story, 50 x 180 ft., brick and steel, plain foundation, at State Hospital, here. $160,000.

Mass., Worcester — Theatre, etc. — A. Goodside, Fidelity Bldg., Portland, Me., plans brick and steel, here. $1,000,000. Desmond & Lord, 15 Beacon St., Boston, archts.

Buildings (Continued)

Conn., Hartford—School—South School Dist. having plans prepared by Whiton & McMahon, archts., 36 Pearl St., 2 story, concrete, brick and steel, Charter Oak Ave. $200,000. J. H. Naylor, 1 Main St., chn.

Conn., Hartford—Theatre, etc.—Park St. Investment Co., 274 Park St., opens bids about Oct. 11, 3 story, brick and steel, plain foundation, Park St. $175,000. E. T. Wiley, 75 Pratt St., archt. Noted July 7.

Conn., Waterbury—Y. M. C. A., 136 West Main St., plans 4 story, on West Main St. $400,000. Architect not announced.

N. Y., Brooklyn—Hospital—Bikur Cholim Hospital, Lafayette and Sumner Aves., plans 4 story, brick, steel and stone, concrete pile foundation, 810 Bushwick Ave. $1,000,000.

N. Y., Brooklyn — Synagogue — Temple Isaac Congregation, 1433 Bedford Ave., plans brick, steel and stone, concrete pile foundation, Prospect Pl. between Franklin and Classon Aves. $250,000. P. Kornsteen, chr. Architect not selected.

N. Y., New York—Apartment—H. O. B. Realty Co., c/o J. Boyland, archt. and engr., 120 East Fordham Rd., having plans prepared 5 story, 100 x 100 ft., brick, steel and stone, concrete pile foundation, 177th St. near St. Nicholas Ave. $250,000. W. R. Harvey, pres.

N. Y., New York — Apartments — C. Kreymborg, archt., and engr., 2534 Marion Ave., soon takes bids four 5 story, brick, steel and stone, concrete pile foundations, Bronx Park South from Vyse to Daily Aves. $175,000 each. Owners name withheld.

N. Y., New York—Turkish Bath and Store—Libbys Baths, Inc., 299 Bway., soon takes bids 6 story, brick, steel and stone, concrete pile foundation, Chrystie St. and Schiff Parkway. $1,000,000. B.H. and C.N. Whinston, 2 Columbus Circle, archts. and engrs.

Pa., Byberry (Phila. P. O.)—Hospitals—Takes bids within year, hospital for epileptics and one for mental diseases, $250,000 each P. B. Sinkler, City Hall, archt.

Pa., Norristown—Clubhouse—Norristown Club, c/o H. G. McMurtrie, archt., 1022 Walnut St., Phila., 3 story, 50 x 116 ft. brick and steel, Swede and Marshall Sts. $175,000.

Pa., Phila.—City Hall—Plans 16 story addition on Broad and Filbert Sts. $2,000,000. J. P. B. Sinkler, City Hall, archt.

Pa., Phila. — Hospital — Will take bids within year, hospital addition on 34th and Pine Sts. $780,000. P. B. Sinkler, City Hall, archt.

Pa., Phila.—Office and Hotel—Bd. Home Missions of Methodist Church, 17th and Arch Sts., plans 8 story addition to present 6 story building, also 14 story, 25 x 160 ft. addition, $1,500,000.

Md., Baltimore—Business—Hynson, Wescott & Dunning, Charles and Franklin Sts., plan 3 story, brick and stone, Charles St. $150,000. H. Sill, 11 East Pleasant St., archt.

Md., Baltimore—Hotel—Belvedere Hotel plans 11 story, 500 rooms, stone addition on Charles and Chase Sts., H. Consolvo, prop. Parker, Thomas & Rice, Union Trust Bldg., archts.

Md., Westminister—High School—School Bd. having plans prepared by B. E. Starr, archt., Spooner Bldg., Harrisburg, 2 story, 80 x 160 ft., rein-concrete and brick. $175,000. M. Unger, supt.

N. C., Charlotte—Exposition—Carolina Exposition Co. Inc., plans exposition building. $200,000. Architect not selected.

N. C., Greensboro—Store—Huntley-Stockton-Hill Co. plans 6 story. $150,000. Architect not selected.

N. C., Raleigh—School—Election soon $750,000 bonds for 3 or 4 schools. T. B. Eldridge, mayor.

Ky., Richmond—School—C. C. and E. A. Weber, archts., 3rd and Walnut Sts., Cincinnati, O., soon take bids 3 story, 87 x 197 ft. and 51 x 58 ft., brick, steel, concrete and cut stone, rein.-con. flooring, for Bd. Educ. $150,000.

O., Canton—Office—City and Stark Co. plan 10 story, Cleveland St. and 2d St. S. W., $500,000. McClaskey & Reese, Valentine Bldg., engrs.

O., Cleveland—School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 2 story, brick, steel and concrete addition, rein.-con. flooring, plain foundation, Scranton Rd. $150,000.

O., Columbus—Hospital—State appropriated $240,500, hospital for feeble minded, including laundry and shops.
Bldg.

O., Dayton—Apartment—E. D. Woodward Co. having plans prepared by F. J. Hughes, archt., 406 U. B. Bldg., 5 story, brick, rein.-con. and terra cotta, rein.-con. flooring, concrete foundation, Far Hills Ave. $150,000.

O., East Liverpool—High School—Plans election $200,000 bonds for 3 story. C. C. and A. L. Thayer, Mercantile Bldg., New Castle, Pa., archts.

O., Salem—Temple—Thayer & Johnson, archts., 5716 Euclid Ave., Cleveland, take bids about Nov. 10, 3 story, 50 x 125 ft., brick, steel and concrete, rein-con. flooring, plain foundation, here, for Masonic Temple Bldg. Co. $150,000. Noted July 28.

Ind., Elkhart—Hotel—Nicols & Hoffman, archts., Lafayette, soon let contract 8 story, 40 x 60 ft., steel and brick, rein.-con. flooring, concrete foundation. $500,000. Owners name withheld.

Mich., Ann Arbor—Dormitory—University Land Co., c/o S. E. Remey, archt., 503 Whitney Bldg., Detroit, had plans prepared 4 story, 60 x 185 ft. rein.-con., brick and steel, concrete foundation, Huron St. $350,000.

Mich., Ann Arbor — Temple Masonic Lodge, c/o Rosseau & McConkey, archts., 106 Liberty St., plans 4 story, 80 x 132 ft., concrete, brick and steel, concrete foundation. $200,000..

Ill., Alton—City Hall—Having plans prepared by L. Pfeiffenberger's Sons, archts., Alton, 2 story, rein-con., brick, stone and steel. $175,000. G. Davis, Chn.

Ill., Aurora—See "Miscellaneous."

Ill., Chicago—Apartment—Hotel—D. Olmsted, 1496 Marlo Ave., Cleveland, O., having plans prepared by H. L. Stevens & Co., archts. and engrs. 30 North Michigan Ave., Chicago, 8 story, rein-con., brick and steel, rein-con. flooring, on North State and Goethe Sts. $2,000,000.

Ill., Evanston—Apartment—C. Lovegren, c/o J. N. Nyden, archt., 190 North State St., Chicago, having plans prepared 3 story, 82 x 125 ft., rein.-con., brick and stone. $150,000.

Ill., Manteno—School—Bd. Educ. having plans prepared by A. L. Pillsbury, archt., Peoples Bank Bldg., Bloomington, 2 story, rein.-con., brick and steel $150,000. C. Luther, supt.

Ill., Moline—Theater—F. L. Cornwall, La Salle Bldg., St. Louis, Mo., having plans prepared 1 story, 69 x 160 ft., rein.-con., brick and stone, here. $200,000. Architect's name withheld.

Ill., Momence—High School—Bd. Educ. plans 2 story, rein-con., brick and stone. $150,000. M. Youke, clk. Architect not selected.

Wis., Baraboo—Business—E. B. Trimpey, Baraboo, plans 2 story, 60 x 85 ft., rein.-con., steel and brick, rein.-con. flooring, brick foundation, Main St. $150,000. Architect not selected.

Wis., Cedarburg—Gymnasium and Community—St. Francis Borgia Congregation having plans prepared by Herbst & Kuenzli, archts., 114 Grand Ave., Milwaukee, 1 and 2 story, 60 x 100 ft., brick and concrete rein.-con. flooring, plain foundation. Cost between $100,000 and $150,00.

Wis., Madison—Hotel—W. R. McNeil, Capitol Hotel, 206 King St., having plans prepared by W. W. Ahlschlager, archt., 65 East Huron St., Chicago, 6 story, rein.-con., brick and steel, rein-con. flooring, plain foundation, on shore of Lake Merdota. $750,000.

Wis., Milwaukee — Auditorium, etc. — Amer. Luthern Assn., 275 11th St., plans 3 story, 50 x 130 ft. brick and concrete, rein.-con. flooring, plain foundation, 11th and State Sts. $150,000. Achitect not selected.

Wis., Milwaukee — Commercial — G. A. Butler & Co., 603 Mitchell St., plans 2 story, 250 x 260 ft., brick and concrete, rein.-con. flooring, plain foundation, on Mitchell St. Cost between $150,000 and $175,000. Architect not selected.

Wis., Neenah—Bank and Office—Natl. Manufacturers Bank having preliminary plans prepared by Childs & Smith, archts., 64 East Van Buren St., Chicago, 2 story, brick, concrete and stone, rein.-con. flooring, plain foundation. $150,000. Noted Apr. 21.

Wis., Sheboygan — Theatre — E. Hoefer, Prop. Rex Theatre, 710 North 8th St., plans 2 or 4 story, 50 x 120 ft., rein.-con. and brick, rein.-con. flooring, concrete foundation, Ontario and 8th Sts. $200,000. Architect not selected.

Wis., Wausau—Hospital—D. L. Plumer Hospital, and Berlin, Swern & Randall, archts., 19 South LaSalle St., Chicago, takes bids later part of October, 4 story, brick, tile and concrete, rein-con. flooring, plain foundation. $300,000. Noted Sept. 1.

Wis., Wausau—School—Bd. Educ., c/o S. B. Toberg, sup., plans 4 story, 60 x 200 ft., rein.-con., steel and brick, brick foundation, Main St., $200,000. Architect not selected.

Ia., Fairfield—Church—Methodist Church Congregation rejected bids opened Sept. 15, 3 story, 66 x 132 ft., brick, steel and concrete. $150,000. Work will be readvertised. G. A. Carpenter, Liggett Bldg., archt. Noted Sept. 1.

Ia., Ottumwa—J. Morrell & Co. having plans prepared by Henschein & McLaren, archts., 37 West Van Buren St., Chicago, 4 story, 102 x 182 ft. factory, and 4 story, 52 x 55 ft. smoke house, rein.-con., brick and steel. $500,000.

Ia., Sioux City—Temple—Scottish Rite Temple, c/o J. R. Carter, secy., Natl. Bank Bldg., having plans prepared by H. Holmes, archt., 151 East Chicago Ave., Chicago, 4 story, 140 x 254 ft., brick, stone and steel, rein-con. flooring. $1,500,000

Minn., Minneapolis—Hospital—A. A. O. N. M. S., Bd Trustees, c/o O. M. Lanstrum, 802 Madison St., Helena, Mont., member building comn., having plans prepared by Betrand & Chamberlin, 616 Northwestern Bank Bldg., Minneapolis, and Beuchner & Orth, 500 Shubert Bldg., St. Paul, archts., for main hospital, administration building, nurses home, etc., 2 story, brick and stone, on East River Blvd. between Franklin Ave. and Chicago, Milwaukee, St. Paul R.R. tracks. $175,000.

Minn., Minneapolis—Sanatorium—Minneapolis Sanatorium Co., 1508 Harmon Pl., soon receives bids for superstructure, 4 story, 98 x 128 ft., stone and brick, on Yale Pl. and Willow St. $200,000. Basement and first floor slab, to J. Leck Co., 316 South 7th St., $27,000. Noted June 30.

Minn., Stillwater—School—Plans election 225,000 bonds, 3 story, rein-con., brick, tile and stone. A. J. Holm, clk. Architect not announced.

Kan., Wichita—Home—Salvation Army, 122 South Lawrence St., having plans prepared by L. Schmidt & Co., archts., 121 North Market St., 3 story, 80 x 112 ft. brick and rein.-con. $150,000.

Kan., Wichita — Temple-Shrine — Temple Assn., c/o C. Drake, plans 4 story, brick, stone trim, rein.-con. or steel. $500,000. Architect not selected.

Kan., Winfield—Church—Holy Name Roman Catholic Church, c/o J. J. Grady, chn., having plans prepared by C. A. Smith, archt., Salina 2 story, brick, stone and steel. $150,000. Noted Sept. 8.

Mo., Kansas City—Hospital, etc.—Election Nov. 22, $500,000 bonds for negro school, also $100,000 nurses home at general hospital, $500,000 armory, $140,000 various fire department buildings, $150,000 to improve municipal farm buildings and $200,000 bath houses in 9 different locations.

Mo., St. Joseph—Hospital—State Hospital 2, c/o A. Fitzsimmons, secy., Jefferson City, having plans prepared by Siemens & Arnold, archts., Bartlett Bldg., St. Joseph, 3 story, brick and stone, here. $221,000. Noted May 19.

Okla., Oklahoma City—Bank—Federal Reserve Bank having plans prepared by Graham Anderson, Probst & White, archts., 80 East Jackson Blvd., Chicago, 4 story, rein.-con., brick, stone and steel. $500,000.

Ont., St. Thomas — Hospital — Election Nov. 11, $160,000 bonds, addition to hospital, Pearl St. Address J. H. Doherty, City Hall.

BIDS DESIRED

Conn., Middletown—Ward—Oct. 17, by Connecticut Hospital for Insane, South Farms, 2 story, 100 x 235 ft. rein.-con., brick and steel, rein.-con. flooring, plain

Buildings (Continued)

foundation, at hospital. $325,000. D. K. Parry, 27 West Main St., New Britain, archt.

Pa., Harrisburg — Bank — Penn-Harris Trust Co., receiving bids 3 story, 80 x 100 ft. concrete terra cotta and brick, Locust and 3 rd Sts. $150,000. Lawrie & Lappley, 206 Market St., archts.

N. J., Atlantic City—Hotel—Oct. 15, by Marshall & Pennell, engrs., 1310 Arch St., Phila., 5 story, 30 x 75 ft., terra cotta and marble addition, rein.-con. flooring, plain foundation, Virginia Ave. and Beach, for P. F. Cope. $200,000. W. M. Stanton, 1310 Arch St., Phila., archt.

N. J., East Orange—High School—Oct. 8, by Bd. Educ. 1 story, brick and stone, Winan St. $200,000. Guilbert & Bettelle, 2 Lombardi St., Newark, archts. and engrs. Noted March 17.

N. J., Trenton—Church—Oct. 12, by C. W. Bolton & Son, archts., Witherspoon Bldg., Phila., 2 story, 70 x 70 ft., cut stone and steel, rein.-con. flooring, plain foundation, for Pilgrim Presbyterian Church. $160,000.

Wash., D. C.—High School—Oct. 26, by Dist. Comrs., 509 Dist. Bldg., High School 176, complete. C. H. Rudolph, comr.; adv. this issue.

N. C. Raleigh—Institute—Oct. 25, by R. S. Busbee, chn. State School for Blind, addition to administration building, 3 cottages, boiler house, laundry tunnels connecting buildings, and residence for superintendent, on campus, here. $200,000 J. A. Salter, Commercial Bank Bldg., archt. Noted July 28.

O., Cincinnati—School—Oct. 24, by Bd. Educ., 7th and Race Sts., 3 and 2 story, 86 x 163 ft. and 53 x 95 ft. concrete, brick, terra cotta and cut stone, rein.-con. flooring Madison Rd. $500,000. S. Hannaford & Sons, 6th and Vine Sts., archts.

O., Cleveland — Hotel — P. Matzinger, archt., Caxton Bldg., receiving bids 6 story, 40 x 170 ft., brick, steel and concrete, rein-con. flooring, plain foundation, 1112 Prospect Ave., for W. J. Cutler Bath Co., Public Sq. $300,000. Noted Aug. 25.

O., Columbus—School—Oct. 24, by Bd. Educ., Town and High Sts., 2 story, 130 x 170 ft., brick, steel and concrete, Poplar Ave. $200,000. H. D. Smith, town and High Sts., archt. Noted July 14.

O., Lakewood (Cleveland, P. O.)—Commercial—Lehman-Schmitt Co., archts., Electric Bldg., Cleveland, receiving bids 5 story, 40 x 132 ft., brick and steel, plain foundation, Detroit and Ridgewood Aves., here, for Schmitt Realty Co., c/o architects. $150,000.

O., Lorain—High School—Oct. 20, by Bd. Educ., 2 story, 12 room, brick, steel and concrete, rein.-con. flooring, plain foundation, East 31st St. and Seneca Ave. $250,000. F. C. Warner, 767 Hippodrome Annex Bldg., Cleveland, archt. Noted May 5.

O., Toledo—School—Oct. 19, by Bd. Educ., Administration Bldg., 3 story, 251 x 344 ft., rein.-con. and brick, rein.-con. flooring, plain foundation, on South Side. Cost to exceed $1,000,000. E. M. Gee, c/o Bd. Educ., archt. Noted Sept. 2.

Mich., Detroit—Hospital—Oct. 15 by C. Freiburger, secy. Bd. Health, 1415 St. Antoine St., 3 story, brick, tile and rein.-con. addition, rein.-con. flooring, concrete foundation, Hamilton Blvd. and Blaine Ave. $300,000. A. Kahn, 1000 Marquette Bldg., archt.

Kan., Kansas City—Church—Oct. 15, by C. A. Smith, archt., Finance Bldg., 3 story, brick, stone, rein-con. and steel, 12th and Cleveland Sts., for Western Highland Presbyterian Church c/o C. E. Alexander, pastor, 2416 North 12th St. $160,000.

Neb., North Platte—Court House—Oct. 11, by Lincoln Co., c/o A. S. Alden, clk., 3 story, 70 x 112 ft., rein-con., brick, stone and tile. $200,000. G. Berlinghof, Orpheum Bldg., Lincoln, archt. Noted May 12.

Mo., St. Louis—College—Oct. 19, by H. P. Hess, archt., 4811 Cote Brilliant Ave., 3 story, 172 x 248 ft., rein.-con. and brick, Clayton Rd. and University Lane, for Christian Brothers College. $500,000. Noted June 30.

Cal., Los Angeles—Hospital—Oct. 17, by Bd. Supervisors, Los Angeles Co., 3 story, 156 x 158 ft., rein.-con., brick and stone, rein.-con. flooring, concrete foundation, $300,000. W. Davidson, Mechanical Dept., Hall of Records, archt and engr.

Cal., Santa Ana—Jail—Nov. 1, by Bd. Supervs. Orange Co., 4 story, 100 x 125 ft., rein.-con., steel, marble and tile, rein.-con. flooring, concrete foundation. $100,000. J. and D. Parkinson, 420 Title Insurance Bldg., Los Angeles, archts.

BIDS RECEIVED

Mass., Hull—Fire and Police Station—Bldg. Comm. opened bids Sept. 27, 3 story, 52 x 118 ft. and 60 x 90 ft., brick and stone, concrete foundation, Atlantic Ave., from S. C. Sperry Co., Main St., Combridge, $164,274 J. Nicholson & Son, 101 Tremont St. Boston, $165,203; T. D. O'Connor, Cambridge, $165,230. Noted Sept. 1.

N. J., Atlantic City—High School—Bd. Educ. 3 story, (1) general construction, (2) plumbing work, (3) heating and ventilating, (4) electrical work, from J. R. Wiggins Co., Inc., 18th and Cherry Sts., Phila., (1) $988,165; Wark & Co., 231 South Broad St., Phila., (1) $1,087,444; Melody, Michael & Sons, 15th and McKean Sts., Phila., (1) $1,105,579; N. Connolly Co., 1404 North 18th St., Phila., (2) $66,000; Currie Co., Atlantic City, (2) $75,389; E. H. Moore Co., 102 York St., Jersey City, (2) $77,960, (3) $255,141; J. H. Cooney, 210 North 4th St., Harrison, (3) $249,480; E. Yetter, Atlantic City, (3) $267,900; G. Woodward, Jr & Co., 1723 Sansom St., Phila., (4) $26,738; Watson Flagg Eng. Co., 120 Liberty St., New York, (4) $27,441; W. J. Coleman, 29 Willow Court, Jersey City, (4) $34,884. Noted March 31.

Mich., Detroit — Recreation — Recreation Comn., 540 Elmwood Ave., 2 story, 140 x 140 ft., rein-con., brick and steel, rein-con. flooring, concrete foundation, Atkinson Park, from A. J. McLean Co., 302 Holden Bldg., $135,546; Corrick Bros., 507 Owen Bldg., $141,974; Culbertson & Kelley Co., 872 Milwaukee Ave., $146,540.

CONTRACTS AWARDED

Mass., Boston—Office—G. W. Harvey, 99 Chauncy St., will build 12 story, brick and steel, rein-con. flooring, concrete foundation, Chauncey St. $450,000. Work will be done by day labor.

Mass., Malden—Theatre—Ideal Theatre Co., 1 story, 66 x 220 ft., brick and tile, rein.-con. flooring, concrete foundation, Pleasant and Abbott Sts., to J. M. and C. S. Buckley Co., 164 Federal St., Boston, $175,000.

Mass., Methuen—School—School Comn., 3 story, 60 x 140 ft. with 45 x 60 ft. ell, brick and steel, rein-con. flooring, plain foundation, Orchard St., to C. H. Cunningham & Sons Co., 23 Central St., Lynn. $225,000. Incorrectly noted Sept. 15.

R. I., Howard—Hospital—Penal & Charitable Comn., State House, Providence, brick and timber ward, plain foundation, to C. B. McGuire, 10 Weybosset St., Providence. $146,346. Noted Sept. 29.

Conn., Torrington—Y. M. C. A., 113 Main St., 3 story, 106 x 143 ft., rein.-con., brick and steel, rein.-con. flooring, plain foundation, Prospect St., to Torrington Bldg. Co., 197 Water St. $250,000. Noted June 16.

N. Y., Brooklyn — Apartment — Milboro Bldg. Corp., 1466 49th St., 4 story, brick, steel and stone, concrete pile foundation, Regent Pl. and East 21st St. $250,000. Work will be done by day labor. Seelig & Finkelstein, 44 Court St., archts. and engrs.

N. Y., Herkimer—Schools—Bd. Educ. 2 schools, one South St. and other North Washington St., brick, steel and stone, concrete pile foundations, to G. Dose Eng Co., Inc., 43 West 27th St., New York. $500,000.

N. Y., New York—Apartment—Estate L. S. Bryce, 14 story, brick, steel and stone, concrete pile foundation, 5th Ave. and 95th St., to F. F. French Co., Madison Ave. and 41st St., $500,000.

N. Y., New York—Apartment—J. Paterno, 719 West 115th St., 6 story, brick, steel and stone, concrete pile foundation, East 163rd St. $325,000. Work will be done by day labor. G. F. Pelham, 200 West 72nd St., archt. and engr.

N. Y., New York—School—Bd. Educ., 500 Park Ave., P. S. 189, Amsterdam Ave. between 188th and 189th Sts., to E. Diebitch, 383 Madison Ave., $587,000. Noted Sept. 29.

N. J., Atlantic City—Hotel—Rankin, Kellogg & Crane, archts., 1012 Walnut St., Phila., 14 story, 135 x 145 ft., marble, tile, rein.-con., steel and brick, rein.-con. flooring, plain foundation, North Carolina Ave. and Beach, here, to G. A. Fuller, 321 Walnut St., Phi'a., for Leeds & Lippincott, Haddon Hall. $2,000,000. Noted Aug. 18.

N. J., Kearny (Arlington, P. O.)—High School—Bd. Educ. 2 story, brick and limestone, including 2 gymnasiums, swimming pool and auditorium to seat 1,300, Devon St., to S. Schrimshaw & Co., 526 Elm St., $654,656. Noted Sept. 29.

N. J., Rutherford—High School—Bd. Educ. 2 story, brick and stone, brick foundation, to F. and T. Hearter, West New York, $325,000. Noted Sept. 8.

Pa., Easton—Bank and Office—Easton Trust Co., Center Sy. and South 3rd St., 5 story, 40 x 50 ft. brick, steel and stone addition, to Hoggson Bros., 485-5th Ave., New York, $245,000.

Pa., Sunbury—Bank and Office—Ritter & Shay, archts., North Amer. Bldg., Phila., 5 story, 60 x 120 ft., cut stone, marble and tile, rein-con. flooring, plain foundation, here, to J. R. Wiggins Co., 18th and Cherry Sts., Phila., for Sunbury Trust & Safe Deposit Co., 4th and Market Sts. $250,000. Noted July 21.

O., Akron—School—Bd. Educ. Caldwell School, 2 story, brick, steel and concrete, rein-con. flooring, plain foundation, to Carmichael Constr. Co., 524 Hamilton Bldg., $183,000. Noted Sept. 22.

O., Cleveland—School—Bd. Educ., East 6th St. and Rockwell Ave., Sunbeam School, 3 story, brick, steel and concrete, rein.-con. flooring, brick and concrete foundation, to C. C. Kinne, Bangor Bldg., $353,700.

O., Toledo—Church—Christian Science Church, 2 story, 80 x 150 ft., Indiana limestone, rein.-con., brick and steel, rein.-con. flooring, plain and concrete pile foundation, Erie St., to A. Bentley & Son Co., 201-31 Belmont Ave., $275,000.

O., Toledo—School—Bd. Educ. 2 story, 100 x 200 ft., rein.-con., brick and tile, rein.-con. flooring, concrete pile foundation, East Bway., to A. Bentley & Son Co., 201-31 Belmont Ave., $389,890.

O., Uhrichsville—School—Bd. Educ. 2 story, 72 x 210 ft. brick, stone and concrete, to D. W. McGrath & Son, 5th and Walnut Sts., Columbus, $249,000. Noted Sept. 22.

Mich., Ann Arbor—Schools—Bd. Educ., to H. G. Christman Co., 315 Stevens Bldg., 2 story, 14 room, on Miller Ave., $200,000, Six Ward School, 12 room, $150,000, also 20 room school on Jones School site, rein-con., brick, steel, stone and terra cotta, rein.-con flooring, concrete foundations. Noted Sept. 8

Mich., Detroit—Apartment—H. Silverman, c/o M. Finkel, archt., 333 Majestic Bldg., masonry contract 4 story, brick, stone and steel, rein.-con. and wood flooring, concrete foundation, 2nd Blvd. and East Canfield Ave., to H. Soltar, 574 Harmon St., $150,000. Noted July 14.

Ill., Danville—Armory—State, c/o E. D. Martin, archt., 304 South Wabash Ave., Chicago, 2 story, 160 x 168 ft., rein.-con and brick, to H. B. Krauel & Co., Dale Bldg., $200,000. Noted Sept. 22.

Ill., Hinsdale—Gymnasium and Auditorium—Bd. Educ. 1 story, 50 x 91 ft., rein.-con., brick and stone, to Dahl-Stedman Co., 11 South La Salle St., Chicago, $150,000.

Wis., Green Bay—Community Club etc—North Side Impvt. Assn., c/o J. T. Kuske, 209 Minahan Bldg., 2 story, 110 x 136 ft., brick, rein.-con. and tile, Main St., to Pinchard Bros., 605 St. George St., $150,000

Wis., Kaukauna—City Hall—For 2 story, brick and concrete, rein.-con. flooring, plain foundation, to J. Coppes, Kaukauna, $150,000; cost plus percentage basis Noted June 23.

Ia., Des Moines—High School—Bd. Educ., Abraham Lincoln School, 2 story, 240 x 360 ft., rein.-con., tile and stone, rein.-con. flooring, on South West 9th and Loomis Sts., to J. E. Lovejoy, 1013 Mulberry St., $606,000. Noted Sept. 8.

Kan., Manhattan—Economics and Cafeteria—State, c/o J. A. Kimball, Topeka, 2 story 82 x 130 ft., to Scott Bros. Constr. Co., Peabody, $150,000. Noted Sept. 8.

Neb., Omaha—Apartment—R. Renwick, 206 North 49th St., will build 3 story, 130 x 130 ft., rein.-con. and brick, 115 Dundee St. $175,000. Work will be done by day labor. Noted Sept. 22.

S. D., McLaughlin—School—Bd. Educ., 3 story, 64 x 140 ft. rein.-con., brick and steel, to F. Peterson, Aberdeen, $150,000 Noted June 25.

Wyo., Cheyenne—High School—Bd. Educ., 3 story, 100 x 160 ft., 28th and Evans Sts., to J. W. Howard, Cheyenne, $318,720. Noted Sept. 1.

Mo., Kansas City—Exposition—Kansas City Stock Yards c/o W. H. Weeks, Live Stock Exch., 2 story, 300 x 870 ft., brick, stone and rein.-con., 23rd St. and Trafficway. $400,000. Work will be done by day labor. Architects name withheld.

Mo., Kansas City—School—Bd Educ., c/o J. B. Jackson, Jr., secy., Library Bldg., Caxton School, 2 story, 36 x 85 ft. and 54 y 99 ft., rein.-con., brick and stone,

Buildings (Continued)

37th and **Paseo Sts., to A. G. Harker, 6235 13th St., $150,000.**

Mo., **St. Louis**—Hotel—C. Ulman, 4540 Lindell St., 8 story, 195 x 230 ft., rein.-con. brick and terra-cotta, Kingshighway and Lindell St. $4,000,000. Work will be done by day labor under supervision of P. J. Bradshaw, archt., International Life Bldg. Noted July 14.

Tex., **Houston**—Church—First Baptist Church, general contract 4 story, 104 x 252 ft., steel frame, concrete floor slabs, to Amer. Constr. Co., 411 Gulf Bldg., $475,000. Noted July 28.

Tex., **Tyler**—Hotel—Tyler Hotel Co., Sumpter Bldg., general, heating and plumbing contracts, 5 story, 100 x 125 ft., to Kidd-Scruggs Co., Insurance Bldg., Dallas, $220,000. Noted Sept. 1.

Okla., **Sulphur**—Hospital—Soldiers Relief Comn., c/o H. B. Bell, Ardmore, 2 story, rein.-con., brick and steel, rein.-con. flooring, brick and rock foundation, to W. S. Bellows & Co., Oklahoma City, $158,000. Noted Sept. 15.

Okla., **Tulsa**—Store—D. Hunt Co., 1539 South Madison St., 5 story, 95 x 150 ft., brick, steel and terra cotta, 4th and Main Sts., to A. F. Wasielewski, 517 South Main St., $350,000.

Que., **Montreal** — Apartment — Westmount Industrial Corp., 21 Stanton St., 6 story, 73 x 93 ft. rein.-con., brick and stone, Sherbrooke St., to J. Shearer & Sons, Shearer St., $250,000.

Federal Government Work

PROPOSED WORK

Me., **Bar Harbor**—Radio Buildings—Spec. 4521—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans radio buildings here.

D. C., **Bellevue**—Underground Utilities—Spec. 4530—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans underground utilities, here.

D. C., **Wash.**—Foam Fire Protection System—Spec. 4525—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans foam fire protection system, here.

Va., **Norfolk**—Cooling Tank—Spec. 4523—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans cooling tank at radio station, here.

Va., **Yorktown**—Bridge, etc.—Spec. 4531—Bureau Yards & Docks, Navy Dept., Wash., D. C., plan bridge and sub-grade for road, here.

Cal., **San Diego**—Dispensary—Spec. 4527—Bureau Yards & Docks, Navy Dept., Wash., D. C., plan dispensary at Marine Corps Base, here.

Cal., **San Diego**—Foundation—Spec. 4528—Bureau Yards & Docks, Navy Dept., Wash., D. C., plan foundation for dispensary and post exchange, here.

BIDS DESIRED

Pa., **Phila.**—Dredging—Oct. 20, by U. S. Shipping Bd., Emergency Fleet Corp., c/o J. M. Hoffman, capt., Room 3933, Navy Bldg., Wash., D. C., dredging North and South Slips, Pier 98 South (Army Base) here.

La., **Alexandria**—Refrigerating Plant—Oct. 19 (change of date), by Treas. Dept., Wash., D. C., ice-making refrigerating plant in kitchen and mess building, U. S. Public Health Service Hospital 27, here. J. A. Wetmore, acting superv. archt.; adv. this issue. Noted Aug. 25.

Cal., **Mare Island**—Remodeling Barracks—Spec. 4489—Nov. 2, by Bureau Yards & Docks, Navy Dept., Wash., D. C., remodeling barracks, Building 53, here.

H. T., **Pearl Harbor**—Storehouse—Spec. 4504—Dec. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., 1 story storehouse, here. Noted Aug. 4.

BIDS RECEIVED

N. J., **Lake Denmark**—Power Plant Impvts.—Spec. 4501—Bureau Yards & Docks, Navy Dept., Wash., D. C., power plant improvements and fire protection system, here, from Lord Constr. Co., 105 West 40th St., New York. $28,384 (125 days); R. J. Mansfield, 135 William St., New York, $34,116 (125 days); Carroll Electric Co., 714 12th St., Wash., D. C., $36,000 (125 days). Noted Aug. 25.

Md., **Annapolis**—Boiler Plant Improvements—Spec. 4500—Bureau Yards & Docks, Navy Dept., Wash., D. C., boiler plant improvements at Naval Academy Hospital, here, from H. E. Crook Co., 28 Light St., Baltimore, Md., $12,875 (90 days); Carroll Electric Co., 714 12th St., N. W., Wash., D. C., $12 955 (90 days); R. J. Mansfield, 135 William St., New York, $12,981 (90 days). Noted Sept. 15.

D. C., **Wash.**—Dispensary—Spec. 4486—Bureau Yards & Docks, Navy Dept., dispensary building, at Navy Yard, here (1) work complete, from M. A. Long Co., 1523 Munsey Bldg., Baltimore, Md., (1) $53,795, (2) $1,100, (3) $600 (150 days). Noted Sept. 15.

Col., **Ft. Lyon**—Steam Distribution System—Spec. 4520—Bureau Yards & Docks, Navy Dept., Wash., D. C., steam distribution system, at Naval Hospital, here, (1) work complete from Carroll Electric Co., 714 12th St., N. W., Wash., D. C., (1) $114,000, (1a) $97,000, (2) $18,000; J. W. Danforth Co., 72 Ellicott St., Buffalo, N. Y., (1) $134,248 (210 days), (2) $11,435 (30 days); W. G. Cornell, 45 East 17th St., New York, (1) $128,065, (2) $15,115 (120 days). Noted Sept. 22.

CONTRACTS AWARDED

D. C., **Wash.**—Dispensary—Spec. 4486—Bureau Yards & Docks, Navy Dept., Wash., D., C., dispensary building at Navy Yard, to M. A. Long, 1523 Munsey Bldg., Baltimore, Md., $53,795 (150 days). Noted Sept. 15.

Col., **Ft. Lyon**—Steam Distribution System—Spec. 4520—Bureau Yards & Docks, Navy Dept., Wash., D. C., steam distribution system at Naval Hospital, here, to Orman Constr. Co., 1000 Cateret Ave., Pueblo, $110,000. Noted Sept. 22.

FEDERAL POWER COMMISSION

Application for Licenses and Permits

Applications

245 — **Darwin Silver Co., c/o W. A. Lamar, Independence, Inyo Co., Cal.**—Wants license for transmission line from main transmission line of Los Angeles to its mining property in Inyo Co.

246—**F. C. Dougerty, Palace Hotel, San Francisco, Cal.**—Wants preliminary permit to develop power at Crater, Long and Tease Lakes, Sweetheart Falls, near Port Snettisham, 42 mi. from Juneau, Alaska in Tongass National Forest. Project includes four dams and power houses, total development of 66,000 hp.

247—**W. H. Samson, Corning, Tehama Co., Cal**—Wants permit for power development Stuart's Fork, Trinity River, in Trinity Natl. Forest, Cal. Project includes dam 75 ft. high, storing 34,000 acre ft., 8 mi. conduits etc.

248—**Southern Sierras Power Co., c/o W. L. Huber, 1st Natl. Bank Bldg., San Francisco, Cal.**—Wants permit to develop power on Bear Creek and Santa Ana River, Angeles National Forest, Riverside Co., Cal. Project includes diversion of two streams to common power house, 25,000 hp. capacity.

249—**L. Jorgenson, 1405 Chronicle Bldg., San Francisco, Cal.**—Wants preliminary permit to develop power on Middle Fork of Feather River, in Plumas Sierra and Butte Counties, Cal. Project involves 6 reservoirs, capacity 372,000 acre ft. conduits, tunnels and six power houses, with total development 200,000 hp.

250—**Northern States Power Co., 208 South La Salle St., Chicago, Ill.**—Wants preliminary permit to develop 6 power projects, near Otsego, Monticello and Clearwater on Mississippi River, above St. Croix Falls, Chisago Co., on Snake River near Pine City, and 3 mi. from mouth of Kettle River, Burnett Co., on St. Croix River. Dams 36, 30, 30, 40, 55 and 30 ft. respectively. Project includes reservoir 5,000,000,000 cu. ft. capacity.

251—**R. T. Harding, 105 Montgomery St., San Francisco, Cal.**—Wants preliminary permit to divert water from Bucks and Grizzly Creeks, near North Fork, Feather River, to forebay and power house in Plumas Co., Cal., total develop 10,000 hp.

252—**E. T. Fletcher, 920 8th St., San Diego, Cal.**—Wants perliminary permit to develop power in Santa Ysabel and Black Canyon Creeks. Project includes dam 200 ft. high, diversion dam and 5.6 mi. pine line to power house in San Diego Co., Cal.,

253—**Gladstone Mining Co., Buena Vista, Cal.**—Wants license for power development on Denny Creek, Col.

254. Rio Grande Light, Heat & Power Co., Albuquerque, N. M.—Wants license for dam and power house in Rio Grande River, in Rock Canyon, in Sandoval and Santa Fe Counties, N. M.

Miscellaneous

PROPOSED WORK

Incinerator — Brooklyn, N. Y. — Dept. Welfare, Municipal Bldg., New York rejected bids garbage incinerator at Kings Co. Hospital, here. Work will be readvertised. Noted Sept. 29.

Piers, etc.—Holmesburg (Phila. P. O.) Pa.—City of Phila. plans completing piers and grounds at Home for Indigent, here. $50,000. W. F. Noller, Holmesburg, engr.

Dredging Equipment—Phila., Pa.—Dept. Wharves, Bourse Bldg., plans to purchase additional units for dredging plant. $500,000. N. L. Stamm, Bourse Bldg., engr.

Fire Boat—Phila. Pa.—Plans to purchase oil burning fire boat, $180,000. N. L. Stamm, Bourse Bldg., engr.

Fair Grounds — Aurora, Ill. — Northern Illinois Fair & Exposition Assn., c/o F. Thielen, having plans prepared, concrete grandstand, bandstand, ½ mi. dirt track, exposition building, barns, race track, poultry house, fire station, office and main entrance buildings, and bridge over railroad tracks. $500,000. Private plans.

Flood Protection Work, etc.—Whiting, Kan.—Straight Creek D. D., c/o C. E. Schrader, secy., having plans prepared flood protection work, earth excavation, concrete retaining walls. Bonds for $60,000 voted. Tuttle-Ayres & Woodward, Reliance Bldg., Kansas City, Mo., engrs.

Swimming Pool—Fargo, N. D.—Election Oct. 28, $50,000 bonds, concrete swimming pool. R. T. Jacobsen, city engr.

Underground Cable, etc.—Kendall (Tulsa P. O.), Okla.—Southwestern Bell Telephone Co., Pioneer Bldg., Tulsa, plans 4 mi. underground cable, 65,000 ft. aerial cable and possibly another exchange, here. $120,000. G. H. Culver, dist. engr.

Docks, etc.—Windsor, Ont.—International Ferry Co. plans docks and offices at ferry. $150,000. Private plans. Prices wanted on all materials.

BIDS DESIRED

Refined Asphalt, etc.—New York, N. Y.—Oct. 13, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and delivery 140,000 gal. refined asphalt, 1,500 cu.yd. binder stone, 2,800 cu.yd. asphalt sand, 940 net ton limestone, 1,500 bbl. Portland cement 25,000 grade 1 granite paving blocks, 1,200 cu.yd. 1½ in. gravel or broken stone and 1,500 cu.yd. paving sand.

Electrical Work—Ossining, N. Y.—Oct. 11, by C. F. Rattigan, supt. State Prisons, Capitol, Albany, electrical work, extension of underground electric conduit feeder system and pump house, Sing Sing Prison, here. L. F. Pilcher, state archt.; adv. this issue.

Trestle and Bins—Wash., D. C.—Oct. 25, at office Dist. Comrs., 509 Dist. Bldg., reconstructing trestle and bins, adv. this issue.

Piling and Lumber—New Orleans, La.—Oct. 11, by Bd. Port Comrs., Court House Bldg., 77,000 lin. ft. S. Y. P., Requisition E. D. 9854; 450,000 ft. creosoted S. Y. P. lumber, Requisition E. D. 9887; 355,000 ft. untreated lumber, Requisition E. D. 9925. W. A. Kernagan, vice-pres.

Subway — Detroit, Mich. — Oct. 21, by Dept. Pub. Wks., subway under New York Central R. R. and Wabash R. R., on Military Ave.,285,800 lb. reinforcing and 662,200 lb. structural steel, 13,800 lb. structural iron, 4,570 cu.yd. rein.-con., 165 cu.yd. mass concrete, 3,160 sq.yd. brick, paving on concrete base, 9,100 sq.ft. sidewalks, 1,020 lin. ft. curbing. C. W. Hubbel, city engr.

Lighting Fixtures—Creston, Ia.—Oct. 10, at office B. Tallman, clk., electrical street lighting fixtures, 50 single light post standards with fixtures, 5,000 ft. underground cables, etc. P. K. De Voe, city engr.

Tunnel—Seattle, Wash.—Oct. 14 (change of date) by Bd. Pub. Wks., tunnel for Gorge Creek Plant of the Skagit River development, 1,100 ft. long, $2,000,000. C. F. Uhden, 314 29th St., engr. Noted Sept. 16.

BIDS RECEIVED

Core Stone, etc.—Coney Island (Brooklyn, **P. O.), N. Y.**—E. Riegelmann, pres. Brooklyn Boro., Boro. Hall, for improvement and protection of beach, here, 30,000 ton core stone for jetties, etc., from Phoenix Constr. Co., 41 Park Row, New York, $1,891,274; Underpinning & Foundation Co., 3rd and Oliver Sts., Long Island City, $1,900,280; Smith, Hauser & MacIsaacs, Inc., 18 East 41st St., New York, $2,034,466. Noted Sept. 8.

Ferry Houses, etc.—Palmyra, N. J.—Tacony Ferry Co., c/o G. F. Sale, Liberty Bldg., Phila., timber and concrete ferry landing or wharf, 60 ft. wide, 180 ft. long with appurtenant bridge, rack, etc., at foot of Cinnaminson Ave., here to Simpson & Brown Co., 90 West St., New York, $38,491. Incorrectly noted Sept. 29.

CONTRACTS AWARDED

Grain Elevator—Plano, Ill.—Farmers Co-operative Grain Co., concrete and steel, 26,000 bbl. capacity, to Ballinger & McAlister, Bloomington, $28,315

OFFICIAL PROPOSALS

Bids: Oct. 7.

Highway Work

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at 12 o'clock noon, eastern standard time, on Friday, the 7th day of October, 1921, for the improvement of highways in the following counties:

Chenango	(one highway: 0.72)
Essex	(one highway: 3.53)
Herkimer	(one highway: 1.09)
Orange	(one highway: 0.74)
Rockland	(one highway: 1.07)
Seneca	(one highway: 0.72)
Steuben (one completion)............	........(two highways: 6.00 and 4.16)
Suffolk	(one highway: 7.13)
Westchester	(one highway: 2.76)

Also for the reconstruction of the following:

Cattaraugus	(one contract)
Schenectady	(one contract)
Tioga	(one contract)
Westchester	(one contract)

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the division engineers in whose division the roads are to be improved or reconstructed. The addresses of the division engineers and the counties in which they are in charge will be furnished upon request.

The especial attention of bidders is called to "General Information for Bidders" in the itemized proposal, specifications and contract agreement.

HERBERT S. SISSON,
Commissioner.

J. C. FINCH,
Secretary.

Bids: Oct. 20.

Concrete Construction

Grand Rapids, Mich.

Sealed proposals endorsed "Bids for Concrete Construction, Filter Plant Extension, Contract No. 6, Grand Rapids, Michigan," addressed to G. J. Wagner, Director of Public Service, will be received at the office of the Director, City Hall, Grand Rapids, Michigan, until 2 p.m. (Eastern Time), Thursday, October 20, 1921, and then and there publicly opened and read.

Proposals shall be made upon the blank form attached to the specifications and shall be sealed, plainly marked as above indicated and filed with the Director of Public Service not later than the above time and date.

Each bid must be accompanied by cash or a certified check made payable to the order of the City Manager for a sum equal to five per cent (5%) of the amount of the bid submitted.

All bids will be compared on the basis of the Engineers' estimate of the work.

Bidders are requested to examine, before submitting their bids, the site where the work is to be done.

The City Commission reserves the right to reject any or all bids.

Plans and specifications may be seen at the office of the City Engineer, City Hall, Grand Rapids, Michigan, or at the office of the Chief Engineer, 351 Summit-Cherry Building, Toledo, Ohio. Plans and specifications may be obtained from the office of the City Engineer, Grand Rapids, Michigan, upon payment of fifty dollars ($50.00) for each set; this amount to be refunded upon return before November 15, 1921, in good condition.

Quantities—

Proposals will be made on seventeen (17) items; the major quantities are as follows:

Concrete	22,000 cubic yards.
Reinforcing Steel	700,000 pounds.

G. J. WAGNER,
Director of Public Service.

R. E. HARRISON,
Chief Engineer.

Bids: Oct. 14.

Centrifugal Pumping Units

Ypsilanti, Mich.

Notice to Contractors. Sealed proposals will be received by the City of Ypsilanti, Michigan, up to 8 o'clock P.M., Eastern Standard time, of the 14th day of October, 1921, for furnishing three motor-driven centrifugal pumping units with capacities as follows:

One 750 gal. per min., against 225 foot head. One 1000 gal. per min., against 225 foot head. One 1500 gal. per min., against 225 foot head.

The plans and specifications under which the units are to be furnished may be examined at the office of the City Clerk, Ypsilanti, Michigan, or at the office of Hoad and Decker, Consulting Engineers, Ann Arbor, Michigan, and copies of same may be obtained by making a deposit of five dollars, which will be refunded upon their return in good condition.

A certified check for a sum equal to five percent (5%) of the amount of the bid will be required with each proposal.

The right to accept any proposal, to reject any or all proposals, and to waive defects in proposals is reserved by the City.

T. E. SCHAIBLE, Mayor.
H. E. HOLMES, City Clerk.
T. F. OLDER, Manager.

HOAD & DECKER, Consulting Engineers,
Ann Arbor, Mich.

Bids: Oct. 10.

Force Main and Substructures

Scarsdale, N. Y.

Sealed bids for the construction of about 0.3 miles of 16-inch cast iron force main, other piping, excavation and concrete foundations for pumping station and for standpipe and appurtenant work in the Town of Greenburgh, Westchester County, New York, will be received by the Scarsdale Board of Water Commissioners at the Village Hall, corner of Popham and Post Roads, Scarsdale, N. Y., until 8 o'clock p.m., on Oct. 10, 1921.

A deposit of $2,500 must be made with each bid, and the Contractor must provide a construction bond in the full amount of his bid.

Drawings and instructions to bidders, forms for proposal, contract and bond, and specifications, are obtainable at the office of George A. Johnson Company, Inc., 150 Nassau St., New York, N. Y., at the price of $5, which will not be refunded, or they may be examined there without charge.

The right is reserved to reject any or all bids.

SCARSDALE BOARD OF WATER
COMMISSIONERS.
GEORGE W. FIELD,
Sept. 26, 1921. Clerk.

Bids: Oct. 17.

Pumping Station

Boonton, N. J.

Notice is hereby given that sealed proposals will be received by the Mayor and Board of Aldermen of the Town of Boonton, N. J., on Monday, Oct. 17, 1921, at 8 p.m., at the Aldermanic Chambers, Main Street, Boonton, at which time and place the said proposals will be opened and read, for the construction and equipment of a high service pumping station.

Proposals must be addressed to Albert P. Smith, Town Clerk, and marked "Proposal for Pumping Station." Each proposal must be accompanied by a certified check for One Thousand Dollars, and also a certificate from a Surety Company authorized to do business in New Jersey, stating that such Surety Company will provide the bidder with a bond in such sum and for such purposes as are required by the Specifications.

Plans and Specifications may be seen and obtained at the office of the Town Clerk, 716 Main Street, Boonton.

The Mayor and Board of Aldermen reserve the right to reject any or all bids.

ALBERT P. SMITH, Town Clerk.

Bids: Oct. 27.

Pumping Plant

Pike County, Ill.

Sealed bids will be received by the Commissioners of the Valley City Drainage and Levee District, Pike County, Illinois, in the office of the engineer, Edmund T. Perkins Engineering Company, 1210, 38 South Dearborn Street, Chicago, Illinois, until October 27th, 1921, 2:00 p.m., for the construction of a pumping plant in said district, consisting of two centrifugal pumps of about 40,000 gallons per minute capacity, together with fuel oil engines, building and necessary appurtenances, according to the plans and specifications on file with the Board of Commissioners of said district.

Bids will be received upon all or any part of the work. The commissioners reserve the right to reject any and all bids and readvertise the letting of the work.

Each person bidding on the work shall deposit a proposal bond or a certified check for ten (10) per cent of the amount of his bid.

Payments for the work will be based on monthly estimates, ten (10) per cent being retained until the work is finally accepted.

Special facilities for seeing the work will be provided upon request to the Edmund T. Perkins Engineering Company, 1210, 38 South Dearborn Street, Chicago, Illinois.

Plans and specifications will be furnished by the Edmund T. Perkins Engineering Company upon the deposit of $5.00, which deposit will be refunded upon return of the plans and specifications in good order within ten (10) days after the awarding of contract. ....

WM. SEVERNS, Chairman.
THOMAS MEEHAN, Commissioner.
HARRY G. EDWARDS, Commissioner.

Bids: Oct. 13.

Water Works Construction

Harrisburg, Pa.

Sealed proposals for building extensions and improvements to the water-works of Harrisburg, Pa., will be received at the Council Chamber until 1 p.m., October 13, 1921, Harrisburg, Pa., at which time they will be publicly opened and read. The work will be done under four contracts, as follows:

CONTRACT A — "Enlargement of the Filtration Plant." This will include the installation of eight new filters, a filter building, a pure-water reservoir, sedimentation and coagulation basins and a 15,000,000-gallon low-lift pumping unit with boiler and accessories.

CONTRACT B — "Improvement of the Pumping Station." This will include the installation of two 15,000,000-gallon high-lift centrifugal pumps with boilers and accessories and a boiler house.

CONTRACT C—"New Force Main." This will include the laying of approximately 2,000 feet of 36-inch Class C cast-iron pipe.

CONTRACT D—"Alteration of Athletic Field." This will include, principally, the building of a wooden grandstand and bleachers, to seat approximately 4,000 people.

Each contract may be awarded separately, or all, or any number, may be awarded to one contractor.

Proposals must be accompanied by certified check equal to 10 per cent of the total bid for each contract. A bond will be required in the amount of 25 per cent of each contract. The right is reserved to reject any or all bids.

"Information for Bidders," "Form of Contract," "Specifications," and plans, may be had at the office of Dr. Samuel F. Hassler, Supt. Public Safety, Harrisburg, Pa., or at the office of James H. Fuertes, Consulting Engineer, 140 Nassau Street, New York, upon request, and upon deposit of $25.00, which will be returned to the prospective bidder upon the return of the drawings and specifications.

S. F. HASSLER,
Supt. Public Safety,
Harrisburg, Pa.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 17	Paden City, W. Va.	Oct. 13.
Oct. 18	Valparaiso, Fla.	Oct. 6
Oct. 18	Duncan, Okla.	Oct. 13
Oct. 18	Manhattan, Kan.	Oct. 13
Oct. 20	Grand Rapids, Mich.	Oct. 6
	Adv. Oct. 6 and 13.	
Oct. 22	West Allis, Wis.	Oct. 13
Oct. 24	Salem, N. J.	Sept. 29
Oct. 24	Milwaukee, Wis.	Sept. 29
Oct. 27	Pawhuska, Okla.	Oct. 13
Oct. 31	Dallas, Tex.	Oct. 13
	Adv. Oct. 13.	
Nov. 10	New York	Oct. 6
	Adv. Oct. 6 and 13.	
Nov. 10	New Braunfels, Tex.	Oct. 13

SEWERS

Oct. 17	De Kalb, Ill.	Oct. 13
Oct. 17	St. George, S. I., N. Y.	Oct. 13
Oct. 18	Greenwood, Miss.	Sept. 29
Oct. 18	Passaic, N. J.	Sept. 29
Oct. 18	Memphis, Tenn.	Oct. 6
	Adv. Sept. 29 to Oct. 13.	
Oct. 18	Rocky Mount, N. C.	Oct. 13
	Adv. Oct. 13.	
Oct. 25	North Arlington, N. J.	Oct. 6
Oct. 27	East San Diego, Cal.	Oct. 6
	Adv. Oct. 6 and 13.	
Nov. 8	London, Ont.	Oct. 13

BRIDGES

Oct. 18	Detroit, Mich.	Oct. 13
	Adv. Oct. 13.	
Oct. 18	Valparaiso, Fla.	Oct. 6
Oct. 19	Freehold, N. J.	Oct. 6
Oct. 19	Tuscaloosa, Ala.	Sept. 29
Oct. 20	North Carolina	Oct. 13
Oct. 20	Pawhuska, Okla.	Oct. 31
Oct. 21	Girard, Kan.	Oct. 13
Oct. 24	New Gretna, N. J.	Oct. 13
	Adv. Oct. 13.	
Oct. 25	Salina, Kan.	Oct. 6
Oct. 27	Grand Rapids, Mich.	Oct. 13
	Adv. Oct. 13.	
Nov. 15	Oklahoma City, Okla.	Oct. 6

EXCAVATION AND DREDGING

Oct. 17	Stillwater, Minn.	Oct. 6
Oct. 21	Holton, Kan.	Oct. 13
Oct. 25	Warren, Minn.	Oct. 13
Oct. 27	Gorham, Ill.	Oct. 13
Oct. 27	Valley, Ill.	Oct. 13
	Adv. Oct. 6 and 13.	
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Oct. 17	Alabama	Sept. 15
Oct. 17	Los Angeles, Cal.	Sept. 29
Oct. 17	Los Angeles, Cal.	Oct. 13
Oct. 17	Southport, N. C.	Sept. 29
Oct. 17	Sulphur, Okla.	Oct. 13
Oct. 17	California	Oct. 6
Oct. 17	El Centro, Cal.	Oct. 13
Oct. 18	Long Island City, N. Y.	Oct. 6
Oct. 18	Rocky Mount, N C.	Oct. 13
	Adv. Oct. 13.	
Oct. 18	Phila, Pa.	Oct 13
Oct. 20	Florida	Oct. 6
Oct. 20	North Carolina	Oct. 13
Oct. 20	New York, N. Y.	Oct. 13
Oct. 22	Lakewood (Cleveland P. O.), O.	Oct. 13
Oct. 24	Louisiana	Oct. 13
Oct. 25	Massachusetts	Oct. 13
Oct. 26	Alabama	Oct. 6
Oct. 28	Duluth, Minn.	Oct. 6
Nov. 1	Lewisburg, W. Va.	Oct. 13
	Adv. Oct. 13.	

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Oct. 18	Kansas City, Mo.	Oct. 13
Oct. 20	Mt. Holly, N. J.	Oct. 6
Oct. 20	Centralia, Ill.	Oct. 13
Oct. 25	Phila., Pa.	Oct. 13

BUILDINGS

Oct. 17	Canton, O.	Oct. 13
Oct. 17	Asheville, N. C.	Oct. 13
Oct. 17	Springwells, Mich.	Oct. 13
Oct. 17	Camden, N. J.	Oct. 13
Oct. 17	Middletown, Conn.	Oct. 6
Oct. 17	Los Angeles, Cal.	Oct. 6
Oct. 18	Centralia, Ill.	Oct. 13
Oct. 18	Cleveland, O.	Oct. 13
Oct. 18	Three Lakes, Wis.	Sept. 29
Oct. 18	Kansas City, Kans.	Oct. 13
Oct. 19	Schenectady, N. Y.	Oct. 13
	Adv. Oct. 13.	
Oct. 19	Toledo, O.	Oct. 6
Oct. 19	St. Louis, Mo.	Oct. 6
Oct. 20	Evanston, Ill.	Oct. 13
Oct. 20	Lorain, O.	Sept. 29
Oct. 20	Lorain, O.	Oct. 6
Oct 20	Phila., Pa.	Oct. 13
Oct. 20	West Chester, Pa.	Oct. 13
Oct. 20	Freeport, Ill.	Oct. 13
Oct. 24	Cleveland, O.	Sept. 8
Oct. 24	Cincinnati, O.	Oct. 6
Oct. 24	Columbus, O.	Oct. 6
Oct. 24	Harrisburg, Pa.	Oct. 13
Oct. 25	Harrisburg, Ill.	Oct. 13
Oct. 26	Wash., D. C.	Oct. 6
Oct. 26	Wash., D. C.	Oct. 13
Nov. 1	Santa Ana, Cal.	Oct. 6
Nov 1	Elizabeth, N. J.	Oct. 13
Nov. 1	Bloomville, O.	Oct. 13
Nov. 5	Peoria, Ill.	Oct. 13
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8

FEDERAL GOVERNMENT WORK

Oct. 15	Revetment — Jacksonville, Fla.	Sept. 22
	Adv. Sept. 22 to Oct. 13.	
Oct. 17	Fire Protection System—Chicago, Ill.	Oct. 13
Oct. 17	Recreation Building—Chicago, Ill.	Sept. 29
Oct. 18	Mailing Vestibule—Sioux City, Ia.	Sept. 29
Oct. 19	Repairs — Ft. Stanton, N. M.	Sept. 29
Oct. 19	Refrigerating Plant — Alexandria, La.	Oct. 6
Oct. 20	Fire Alarm System—North Little Rock, Ark.	Sept. 29
Oct. 20	Dredging—Phila., Pa.	Oct. 6
Oct. 22	Emergency Dams — Seattle, Wash.	Sept. 29
	Adv. Sept. 29 to Oct. 13.	
Oct. 26	Electric Cable System — Charleston, W. Va.	Oct. 13
Oct. 28	Alterations to Post Office — Decatur, Ill.	Oct. 13
	Adv. Oct. 13.	
Oct. 31	Hospital — Ft. Bayard, N. M.	Oct. 13
Nov. 2	Quarters—Prescott, Ariz.	Oct. 13
Nov. 2	Remodeling Barracks—Mare Island Cal.	Oct. 6
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6
	Adv. Oct. 13.	

MISCELLANEOUS

Oct. 18	Grade Separation—Detroit, Mich.	Oct. 13
Oct. 18	Oil Tank Wagons—Phila., Pa.	Oct. 13
Oct. 20	Incinerator — Montreal, Que.	Sept. 29
Oct. 21	Subway—Detroit, Mich.	Oct. 6
Oct. 22	Cut Stone—Wash., D. C.	Sept. 29
	Adv. Sept. 29 to Oct. 13.	
Oct. 24	Coal Handling Apparatus, etc.—Thiells, N. Y.	Oct. 13
	Adv. Oct. 13.	
Oct. 25	Trestle and Bins—Washington, D. C.	Oct. 6
Oct. 26	Jetty — New Westminster, B. C.	Sept. 29

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

O, Georgetown—Making plans for waterworks and sewerage system, $120,000. Jennings-Lawrence Co., Hartman Bldg., Columbus, engrs.

O., Kingston—Making plans water works, including deep wells, pumping station, 4 mi. pipe, etc. $48,000. Jennings-Lawrence Co., Hartman Bldg., Columbus, engrs.

Ia., Cedar Rapids—Making plans and soon takes bids, reservoir and mains. $300,000. H. F. Bloomquist, supt. Noted Jan. 20.

Ia., Cedar Rapids—Plans reservoir, 7,500,000 gal. capacity. $300,000. L. J. Storey, clk. Engineer not selected.

Minn., Chandler—Making plans waterworks. $30 000. Jones & Curtis, Fairmont, engrs.

Kan., McCracken—Making plans new mains, addition to pumping station and reservoir. $55,000. Ruckel Eng. Co., Hutchinson, engrs.

Okla., Maysville—Making plans waterworks and sewerage system. $27,000. H. G. Olmstead & Co., Tradesman Bank Bldg., Oklahoma City, engrs.

Wyo. Cody—Election Nov. 2, $65,000 bonds, gravity water system, 12 x 20 x 60 ft. concrete reservoir extension distributing system, 20 x 20 ft. brick and stone pumphouse, chlorination equipment. H. F. Bell, Cody, engr.

Tex., Edinburg—Attorney Generals Dept., Austin, approved $30,000 bonds, waterworks improvements, etc.

Ont., Almort—Take bids early in 1922. new waterworks. $300,000. W. B. Redfern, of James, Proctor & Redfern, Ltd., 36 Toronto St., Toronto, engr.

BIDS DESIRED

W. Va., Paden City—Oct. 17, by S. I. Furbee, mayor, waterworks. E. O. Buck recd.

Kan., Manhattan—Oct. 18, by City Clerk waterworks, $40,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs. Noted July 21.

Wis., West Allis—Oct. 22, by Bd. Pub. Wks., laying 5,200 lin.ft. 24 in. Class C mains on National Ave. from Arnould to 47th Aves., 47th Ave. from National to Lapham Aves., 727 ton 24 in. pipe, 40 lin.ft. 6 in. pipe, specials, pluge, sleeves, tees, seven 6-24 in. gates, 3 air cocks, 4 standard manholes, etc. $90,000. Bids will also be received for meter pit with two 16 in, standard velocity meters, etc. W. Darby, city engr.

Okla., Duncan—Oct. 18, by J. W. Ewell, city clk., one 2,000,000 gal. capacity reservoir, concrete and steel tank, 30 x 40 ft. brick power house, 40 x 50 ft. pumping station, two 400 hp. Deisel oil engines, two 920 cu.yd. capacity air compressors and two 300 G.P.M. electric driven service pumps. $300,000. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs. Noted July 21.

Okla., Pawhuska—Oct. 27, waterworks, pumping stations, reservoir and mains. $177,000. H. G. Olmstead & Co., Tradesmans Bank Bldg., Oklahoma City, engrs. Noted Sept. 29.

Tex., Dallas—Oct. 31, by Mayor and City Comrs., at office City Secretary, pumping equipment. D. Morey, Jr., 517 Praetorian Bldg., engr.; adv. this issue.

Tex., New Branfess—Nov. 10, one 1,000,000 gal., one 800,000 gal. or two 500,000 gal. twin standpipes, 108 ft. high. M. L. Diver, Bedel Bldg., San Antonio, engr.

Waterworks (Continued)

BIDS RECEIVED

O., Elyria—For rein.-con. roof for coagulation basin and appurtenant work, from Hunkin-Conkey Constr. Co., Century Bldg., Cleveland, $13,000; railroad siding, from H. L. Carr, Frederick Bldg., Cleveland, $4,300. See "Contracts Awarded." Noted Sept. 8.

CONTRACTS AWARDED

N. Y., S. I. St. George—C. D. Van Name, pres. Richmond Boro, Boro Hall, mains in Evelyn Pl., Crescent, Guyon, Garretson and Wandell Aves., Nichols St. Old Town and Willowbrook Rds. to G. Gloriana, 426 Bowery, New York, $26,285. Noted Sept. 29.

O., Elyria—Pumping station and filtration plant, to Hunkin-Conkey Constr. Co., Century Bldg., Cleveland, $143,000. Noted Sept. 8.

O., Forest—A. F. Bartlett, clk. Bd. Trustees of Pub. Affairs, waterworks, to Summers & Hardin, 225 Holland Bldg., Lima, $30,770. Noted Sept. 15.

Sewers

PROPOSED WORK

Pa., Johnstown—Election Nov. 5, $800,000 bonds for sanitary sewers. H. L. Wilson, 184 Worth St., engr.

O., Georgetown—See "Waterworks."

O., Kingston—Plans 5 mi. sewers, disposal plant with septic tanks. $55,000. Jennings-Lawrence Co., Hartman Bldg., Columbus, engrs.

Mich., Detroit—Plans lateral sewers in alleys between Dresden, Racine, Findlay, Portlance, Waltham, Gratiot, Wildermere, Lawton, Midland, Puritan, Fairfield, Fairport, Marley, Greenfield, Newport, Lakewood, Korte, Van Dyke and Castle Aves., also laterals 3521, 3522, 3536-3540 inclusive, 3547, 3548, 3551 and 3495, vitr. crock, 10-13 in. $60,000. C. W. Hubbell, city engr.

Ill., Hinsdale—Making plans 12 in. glazed sewers in various streets. $26,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Zion—Making plans 8-18 in. glazed tile sewers. Gideon St. $40,000. J. Craig, Administration Bldg., engr.

Wis., Ostburg—Having plans prepared sanitary and storm sewers. $35,000. J. Donohue, 8th St., Sheboygan, engr.

Ia., Burlington—Making plans 12-18 in. glazed tile sewers. Osborne St. $35,000. H. A. Vollmer, city engr.

Minn., Winona—Plans 8.5 mi. sewers in 3rd Sewer Dist., west of Lafayette St., south of Chicago, Milwaukee & St. Paul R.R. tracks. $50,000. E. E. Chadwick, city engr.

Kan., Lindsborg—Making plans 8 in. glazed tile sewer pipe, manholes and flush tanks. $30,000. H. A. Rowland, McPherson, engr.

Okla., Mayesville—See "Waterworks."

Cal., Glendale—Bd. Trustees making plans and opens bids about Dec. 1, 1,774 ft. 6-15 ft. vitr. pipe, 7 septic tanks and 21 cesspools. $36,500. C. L. Hill, 320 West Vine St., engr.

BIDS DESIRED

N. Y., S. I., St. George—Oct. 17, by C. D. Van Name, pres. Richmond Boro, temporary sewers in Clove Ave. from Staten Island Ry. to point about 6 ft. north of Fingerboard Rd., etc. $35,000.

N. C., Rocky Mount—Oct. 18, 10,736 lin. ft. 8 in. and 5,501 lin. ft. 10 in. sanitary sewers, etc. J. J. Wells, Rocky Mount, engr.; adv. this issue.

Ill., DeKalb—Oct. 17, sewerage system, 5,709 ft. 6-12 in. pipe. W. Hay, city engr.

Ont., London—Nov. 8, by S. Baker, City Hall, storm sewers in Pinelawn suburb, $170,000. Prices wanted on tile up to 24 in. H. A. Brazier, city engr.

BIDS RECEIVED

N. Y., New York—H. Bruckner, pres. Bronx Boro, sewer in La Salle and Crosby Aves., from J. L. Sigretto, Woodhaven, (a) $70,545, Fordham Contg. Co., (a) $72,573, (b) $73,000, J. J. B. La Marsh, 1510 Appleton Ave., (a) $80,752, (b) $80,752, C. W. McDonald, West 10th St., Brooklyn, (b) $74,868; regulating, grading and laying sidewalks, etc., on East 156th St., from F. Spadaro, 827 East 217th St., $6,938, I. F. Cavaluzzo, 1538 Walton Ave., $7,426, Williams & Quinn, $7,522; paving roadway of East 186th St., from C. D. Beckwith, Inc., 301 West 108th St., $4,189, Brusstar Constr. Co., Inc., Harlem River and 150th St., $4,360, Interboro Asphalt Co., $4,555. Noted Sept. 29.

N. J., Clifton—Passaic Valley Sewerage Comrs., 128 Market St., Newark part of Sect. 25, Yantacaw River Crossing, here, (1) lump sum, earth excav., dredging and refilling, in trenches, etc., (2) lump sum, laying 20 in. c.i. pipe line across Passaic River, etc., from Merritt & Chapman Derrick and Wrecking Co., 17 Battery Pl., New York, (1) $16,700, (2) 5,000, total cost $24,715; Bay State Dredging & Contg. Co., East Boston, Mass., (1) $21,000, (2) $6,177, $35,372; Arnolt-More, Inc., 45 Clinton St., Newark, (1) $62,000, (2) $2,000, $72,975. Noted Sept. 8.

CONTRACTS AWARDED

R. I., Providence—Labor laying sewers in twelve streets, to F. A. Gammino, 331 Bway.; M. A. Gammino, Valley St.; and P. Gallo, 135 Ontario St. Total $34,421. City furnishes materials.

O., Dayton—Montgomery Co. sewer in East Paark Sanitary Sewer Dist. 1, to C. J. Wetzel, 66 Davies Bldg., $33,412. Noted Sept. 22.

Mich., Detroit—To Oakwood Constr. Co., 165 Fort Blvd., lateral sewer 3411, $12,081, lateral 3527, $3,200; M. C. Livingstone, 778 Wilde Ave., lateral 3501, $38,068; Detroit Drainage Constr. Co. 400 Penobscott Bldg., lateral 3502, $42,700, lateral 3503, $6,193, lateral 3511, $4,158, lateral 3519, $48,000, lateral 3524, $12,600, lateral 3525, $10,134, lateral 3526, $1,193, lateral 3528, $768, lateral 3530, $2,362, lateral 3533, $3,400. Noted Oct. 6.

Ill., Cary—Bd. Local Impvts., sewerage system, 15,666 8-12 in. pipe, 47 manholes, and small disposal plant, to Logan & Giertz, Elgin, $23,915. Noted Sept. 29.

Ont., Hamilton—For 4,000 ft. rein.-con. sewer in Wellington St. from Ferrier to Barton Sts., to A. Cope & Sons, 29 Albert St., $355,500.

Ont. London—For 3 c.ui. syphons lines, one 12 in. and two 8 in. across River Thames, to P. Mohan, 36 Belgrave Pl., and Webster Constr. Co., London, $25,000.

Bridges

PROPOSED WORK

N. Y., Buffalo—Had plans prepared maintaining and repairing steel truss bridges. Bids soon for 2 bridges. Cost to exceed $250,000. G. H. Norton, Municipal Bldg., city engr.

Pa. Johnstown—Election Nov. 5, $450,000 bonds for Franklin, Poplar St. and Cambria City Bridges. H. L. Wilson, 184 Worth St., engr.

North Carolina—State Highway Comn., Raleigh, plans rein.-con. bridge over Fishing Creek, State Project 653, Halifax Co. $30,000. C. M. Upham, state highway engr.

Wis., Appleton—Plans 2,800 ft. steel or concrete viaduct, 40 ft. wide, two 6 ft. walks, over Fox River on Lake St. $850,000. E. L. Williams, clk.

Wis., Melrose—Jackson Co., (Black River Falls) and State Highway Comn., Madison, are making plans 650 ft. steel bridge, 20 ft. roadway, concrete piers and abutments, here $75,000. M. W. Torkelson, bridge engr.

Tex., Austin—Travis Co. election soon $611,959 bonds, 230 steel and concrete bridges, culverts and dips, some to replace those destroyed by recent floods. O. Leonard, co. engr.

BIDS DESIRED

N. J., New Gretna—Oct. 24, by State Highway Comn., Broad St. Bank Bldg., Trenton, widening trestle bridges 69, M. P. 11.1 over Cramers Creek and Bridge "R", M. P. 10.9 Lovelands Thoroughfare, Route 4, between here and Port Republic, Burlington Co. C. A. Mead, 790 Broad St., Newark, bridge engr.; adv. this issue.

North Carolina—Oct. 20, by State Highway Comn., Raleigh, bridges and culverts on State Project 513, Nash Co., 1,140 cu.yd. concrete, 60,800 lb. reinforcing and 112,500 lb. structural steel, 600 ft. untreated timber piles, 700 sq.yd. rock asphalt wearing surface, etc. $47,000. C. M. Upham, state highway engr.

Mich., Detroit—Oct. 18 by Bd. Rd. Comrs. Wayne Co., rein.-con. arch bridge over Huron River at Sumpter Rd.; adv. this issue.

Mich., Grand Rapids—Oct. 27, by Director Pub. Serv., rein.-con. bridge over Grand River on Pearl St. C. A. Paige, city engr.; adv. this issue.

Kan., Girard—Oct. 21, Crawford Co., 107 ft. bridge, two 50 ft. concrete girders. C. M. Cooper, Girard, engr.

Okla., Pawhuska—Oct. 20, by Clerk Osage Co., 70 ft. steel span bridge 4 mi. east of Hominy, 40 ft. beam bridge 3 mi. north of Wekiwa, 70 ft. steel span 2 mi. northwest of Sperry, 102 ft. steel span 4 mi. north of Burbank, 40 ft. bridge 25 mi. west of Fairfax, two 30 ft. beam bridges, 8 mi. west of Burbank, 40 ft. beam bridge, 12 mi. west of Fairfax, 140 steel span 7 mi. south of Chautauqua. Part of these bridges have stone abutments and part concrete. Bids will be asked for jobs complete, also for sub and superstructures separate. W. M. Clark, co. engr.

Mass., Holyoke—Bd. Pub. Wks., 150 ft rein.-con. and steel bridge over 2nd level canal, from Hoyt Constr. Co., 85 Dartmouth St., $40,118; Walsh Steam Boiler Wks., Appleton St., $41,494; M. J. Walsh & Sons, 1412 Dwight St., $41,850. Noted Sept. 29.

North Carolina—State Highway Comn., at div. office Asheville, rein.-con. bridges and culverts on State Project 545, Graham Co., to C. M. Dicus, Mill Springs, $18,100; State Project 548, Clay Co., to W. T. Moore Concrete Products Co., Andrews, $23,515; State Project 534, Cherokee Co., to Southern Dray Co., Asheville, $21,781. Noted Sept. 29 under Streets and Roads.

Florida—State Highway Dept. Tallahasee, bridges and culverts on State Rd. 1, Federal Aid Projects 11, 21, 22, 23 and 24, between Jacksonville and Lake City. (a) 1,316 cu.yd. Class A concrete (b) 833 cu.yd. Class B concrete, (c) 118,967 lb. reinforcing steel, (d) creosoted lumber, (e) piling, from Clayton-Mitchell Co., Cairo, Ga., (a) $27 per cu.yd., (b) $26, (c) $0.04½, (d) $100, (e) $1.50; W. T. Hadlow, Baldwin, Bldg., Jacksonville, (a) $30., (b) $30, (c) $0.04½, (d) $90, (e) $1; T. B. Puckett, Perry, (a) $31, (b) $31, (c) $0.06, (d) $145, (e) $1.50.

Kentucky—State Highway Dept., Old Capitol Bldg., Frankfort, (1) 3 steel bridges, concrete sub-structure on Mayo Trail, Lawrence Co., (2) over Big Creek, Pike Co., (3) over Hites Run, Breckenridge Co., (3) over Indian Creek, Hancock Co., from Highway Iron Products Co., Legonia, Ind., (1) $46,914, (2) $8,443; Kentucky Bridge Co., Louisville, (1) $47,796, (3) $10,598, (4) $11,008; Champion Bridge Co., Wilmington, O., (1) $51,588 (2) $9,658, (3) $10,864; Vincennes Bridge Co., Vincennes, Ind., (3) $10,652, (4) $10,850; Speed-Parker Inc. Co., Louisville, (2) $9,807. Noted Sept. 22.

Wis., Sauk City—State Highway Comn., State Capitol Annex, Madison, Sauk City Bridge over Wisconsin River between here and Roxbury, on State Trunk Highway 12, 995 ft. long, 20 ft. roadway, 6 ft. sidewalk, from Wausau Iron Wks., Wausau, $128,400; Worden-Allen Co., Pt. Washington Rd., Milwaukee, $142,000; Koss Constr. Co., 2818 5th St., Des Moines, Ia., $145,000. Unit bids may be obtained by writing Engineering News-Record. Noted Sept. 16.

CONTRACTS AWARDED

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, 3 concrete bridges, Jo Daviess-Stephenson Counties, to W. H. Shons, 109 Spring St., Freeport, $11,089; 1 steel bridge ,Will Co., Joliet Bridge & Constr. Co., 417 Natl. Bank Bldg., Joliet, $10,613; 1 steel bridge, Kendall Co., Frandson Constr. Co., 64 West Randolph St., Chicago, $7,058; 6 concrete bridges, Monroe Co., A. Culberson, Oconee, $2,160. Noted Aug. 18.

Wis., Kenosha—Concrete abutments and approaches to bridge on Middle St., from Greiling Bros., East Walnut St., Green Bay, $57,125; E. E. Gillen Co., 120 Wisconsin St., Wilwaukee, $57,200; Great Lakes Dredge & Drain Co., 216 West Water St., Wilwaukee, $59,250. Former contract rescinded. Noted July 14.

Bridges (Continued)

South Dakota—State Highway Comn., Pierre, three 56-ft., one 205-ft., two 45-ft. and one 73-ft. concrete viaducts, one 65-ft. pony truss and two 30-ft. I beam spans, on Federal Aid Project 82, Brookings Co., to Iowa Bridge Co., 712 Hubbell Bldg., Des Moines, Ia., $28,457.

Wyoming—State Highway Dept., Cheyenne, two 130-ft. steel spans, 18 ft. wide, concrete abutments and approaches, north of Lusk, Niobrara Co., to D. B. Miller, Cheyenne, $36,008. Noted Sept. 22.

Que., Montreal—For rein.-con. bridge, Sherbrooke St. E., to A. Leduc, 351 Christophe Colombe St., $144,100. Noted Oct. 6.

Dam

PROPOSED WORK

Ont., London — Pub. Utilities Comn., Hydro Bldg., making plans rein-con. dam over Thames River, Springbank Park, 8,000 cu.yd. rein.-con. $150,000. E. V. Boston, making plans 13,333 ft. gravel state highway engr.

Railways

PROPOSED WORK

Wisconsin—Duluth Superior Traction Co., 2631 West Superior St., Superior, preparing road bed of crushed rock, concrete foundation and laying tracks for single electric railway trolley here. $50,000. Work will be done by day labor.

Excavation and Dredging

PROPOSED WORK

Ill., Quincy — Drainage — Bd. Supervs. Adams Co. making plans open ditch and tile work, in Long Island, north of here. $400,000. W. P. Bushnell, Wells Bldg., ch. engr.

BIDS DESIRED

Ill., Gorham — Excavation—Oct. 27, by Comrs. Big Lake Special D. D., reconstructing outlet ditches, 171,880 cu.yd. excav. T. G. Dunn, Gorham, engr.

Ill., Valley—Pumps—Oct. 27, by Comrs. Valley City Drainage and Levee Dist., Pike Co., at office E. T. Perkins Eng. Co., 38 South Dearborn St., Chicago, centrifugal pumps, oil engines, etc.; adv. this issue.

Minn., Duluth—Ditch—Jan. 7, by F. W. Borgen, aud. St. Louis Co. County Ditch 13, in Payne-Kelsey Dists., to drain 55,000 acres in 6 townships. $375,000. T. F. McGilvray, Court House, co. engr.

Minn., Warren—Ditch—Until Oct. 25, by Marshall Co., Judicial Ditch 30, 298,965 cu. yd. excav., etc. $76,965. I. E. Quist, Warren, engr.

Kan., Holton—Stream improvement—Oct. 21, by E. R. Sloan, attorney for Straight Creek D. D. 2, improving stream, 183,000 cu.yd. excav., etc. $60,000. Tuttle, Ayres & Woodward, Reliance Bldg., Kansas City, Mo., engrs.

CONTRACTS AWARDED

Ia., Hampton—Drainage—Franklin Co. systems in D. D. 63, 65 and 70, 70,500 lin. ft. 6-26 in. tile,, to Humboldt Gravel & Tile Co., Humboldt, $31,665.

Streets and Roads

PROPOSED WORK

N. H., Hampton—Plans permanent surface on Hampton Beach Rd. $50,000. W. A. Grover, 41 Atkinson St., Dover, engr.

Massachusetts — State Highway Dept., Boston making plans 13,333 ft., gravel highway in Plainfield, 18 ft. wide. $60,000; 8,100 ft. gravel highway in Cummington, 18 ft. wide. $40,000. A. W. Deane, 413 State House, Boston, engr.

Pa., Ferndale—Blacklick Twp. had surveys made 4 mi. state road through Nanty-Glo, Twin Rocks and Belsano, concrete or brick, $200,000. L. R. Owen, Otto Bldg., Johnstown, engr.

Pa., Johnstown—Election. Nov. 5, $400,000 bonds for new paving, $450,000 bonds repaving streets as follows: Broad, $94,452, Washington, $41,240, Vine, $41,240, Main, $33,300, Railroad, $25,560, Horner, $61,200, Baumer, $27,960, Maple, $25,680, Pine, $24,960, Walnut, Franklin, Jackson, Bedford, Poplar, Adams and Clinton, $90,000. H. L. Wilson, 184 Worth St., engr.

North Carolina—State Highway Comn., Raleigh, plans grading, draining and paving with some type hard surface 8.9 mi. road from Browns Mill to Mecklenburg Co. line, State Project 676, Cabarrus Co., $300,000, 1 mi. through corporate limits of Waxhaw, State Project 677, Union Co., $35,000; grading draining and topsoiling 6 mi. from Rocky River Bridge toward Wadesboro State Project 678, Anson Co., $35,000; clearing, grubbing, grading, draining, bridging and surfacing 14 mi. from Rockingham to Central Highway, near Hoffman, State Project 679, Richmond Co., $125,000; grading, draining, bridging and surfacing 9.5 mi. from Taylorsville to Iredell Co. line, State Project 680, Alexander Co., $54,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans grading, draining, clearing, grubbing, bridging and topsoiling 18.6 mi. from Bakersville to Tennessee State Line, Project 683, Mitchell Co., $100,000; grading, draining and surfacing 5 mi. from Alexander Co. line toward Lenoir, Project 682, Caldwell Co., $30,000; grading, draining and paving with some type of hard surface 2.5 mi. from Caldwell Co. line toward Taylorsville, Project 681, Alexander Co., $100,000. C. M. Upham, state highway engr.

North Carolina—State Highway Dept., Raleigh, plans clearing, grubbing, grading, draining, bridging and surfacing 21 mi. road from end of Project 583 to Marion, State Project 684, McDowell Co., $150,000, 12.7 mi. from Marion to Rutherford Co. line, State Project 685, McDowell Co., $100,000, 12.8 mi. from McDowell Co. line to Rutherfordton, State Project 686, Rutherford Co., $100,000, 10 mi. from Micaville to Government Reservation Rd., State Project 687, Yancey Co., $80,000; paving with concrete or some type of asphalt 12 mi. Old Federal Aid Project 90, State Project 694, Pamlico Co., $340,000. C. M. Upham, state highway engr.

Florida — State Rd. Dept., Tallahassee, making plans and opens bids early in November, surfacing 12.8 mi. Rd. 1 from Baldwin east, Duval Co., bituminous macadam or bituminous concrete on rock base. $380,000.

Ill., Brookfield—Making plans paving various streets, vitr. brick or asphalt on concrete base. $100,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., East St. Louis—Plans paving Columbia Pl., asphalt on concrete base. $28,500. A. O'Leary, comr. Engineer not selected.

Ill., East St. Louis—Plans paving State St., asphalt on concrete base. $29,000. A. O'Leary, comr. Engineer not selected.

Ill., East Moline—Making plans paving various streets, concrete, monolithic-concrete, asphalt or vitr. brick, $175,000. L. E. Sneer, city engr.

Ill., Joliet—Making plans paving Buell Ave., asphalt on concrete base. $35,000. R. S. Calkins, Joliet, Natl. Bank Bldg., engr.

Ill., North Chicago—Making plans paving Lincoln Ave., asphalt on concrete base. $100,000. O. M. Powell, City Hall, engr.

Ill., Oak Park—Making plans paving alley on Jackson Blvd. and Van Buren St., vitr. brick on concrete base. $27,000. C. E. White, city engr.

Wis., Stevens Point—Bd. Pub. Wks. takes bids in December, grading, paving, curbing and guttering Division, Pine and 5 other streets. $100,000. W. F. Reichardt, city engr.

Mont., Great Falls—Cascade Co. plans election $250,000 bonds, grading Great Falls-Helena River Rd. F. C. Roosevelt, aud.

Mo., Kansas City—Making plans paving Lydia St., 1,996 sq.yd. concrete. $40,000. R. Waddell, City Hall, engr.

Mo., St. Joseph—Making plans grading and paving Miller and Ashland Aves., concrete. $31,000. W. K. Seitz, City Hall, engr.

Tex., Austin—Travis Co. plans election $66,868 bonds grading, surfacing and topsoiling 75 mi. highways and main county roads, 16 ft. surfacing, 24 ft. shoulder to shoulder. O. Leonard, co. engr.

Tex., Crockett—Houston Co. rejected bids grading, surfacing and draining 13.73 mi. State Highway 21. $114,013 including 10% for engineering and contingencies. Work will be readvertised. G. W. Courter, Marlin, engr. Noted Oct. 6.

Tex., Eastland—Eastland Co. making plans clearing, grubbing, grading, surfacing and draining State Highway 1, from Cisco to Ranger, 2,675 cu.yd. solid rock, and 2,227 cu.yd. loose rock excav., 8,370 ton asphaltic concrete, 333.5 cu.yd. 1:2:4 and 46.6 cu.yd. 1:2½:5 concrete, 3,848 cu.yd. sledge stone, 29,524 cu.yd. crushed rock, 26,914 lb. reinforcing steel. $402,116. W. R. Eccles, co. engr.

Tex., Franklin—Robertson Co. plans grading and graveling roads. $150,000. J. Reid, co. judge.

Tex., La Grange—Fayette Co. rejected bids received Sept. 24, gravel surfacing 11.27 mi. Highway 3. Work will be readvertised. A. Schlafli, Schulenburg, Co. engr. Noted Oct. 6.

Tex., Laredo—Webb Co. making plans topping with bituminous material 6 mi. State Highway 12, 16 ft. wide. $45,000. T. R. Spence, co. engr.

Tex., McKinney—Collin Co. making plans gravel surfacing and draining 1.8 mi. State Highway 1, frof Hunt Co. line to Rockwall Co. line, 16 ft. wide. $70,000. F. W. Cawthon, co. engr.

Utah, Nephi—Juab Co. sold $225,000 bonds and has $100,000 on hand which will be duplicated by Federal Government making $650,000 for road work, including 16 mi. road from here to Utah Co. line, 18 ft. wide, concrete or other hard surface; grading and graveling 9 mi. from Levan south and west. E. S. Hoyt, clk. Projects under direction of Utah State Rd. Com. Noted Sept. 29.

Ont., Ottawa—Making plans paving Wellington St. from Garland to Parkdale Sts., 22,000 sq.yd. asphalt and woodblock on concrete base. $112,000. A. F. Macallum, city engr.

BIDS DESIRED

Massachusetts—Oct. 25, by State Highway Dept., Boston, paving 34,440 ft. rein-concrete and bituminous highway in Danvers and Topsfield. 20 ft. wide, $300,000; 8,650 ft. gravel highway in Ashfield, 18 ft. wide. $40,000; 1,412 ft. rein. concrete or bituminous concrete highway in Boston, 20 ft. wide. $12 000. A. W. Deane, 413 State House, Boston, engr.

N. Y., New York—Oct. 20, by Park Bd. at office Dept. Parks, Municipal Bldg., paving public driveway between 155th and Dyckman Sts., sheet asphalt on concrete foundation. F. B. Gallatin, pres.

Pa., Phila.—Oct. 18, by F. H. Caven, dir. Pub. Wks., paving and grading York Rd., Florence 68th Torresdale and Henry Aves., Spencer, Palethrop, Marshall, Lambert, Hancock, Howard, Diamond, 19th, 16th, Penthridge, Ridgewood, Benson, Arlington, Berks, 52nd, 53rd, McClellan, Tree, Aruber, Coral, Cumberland, 22nd, Rector, 27th, 24th, 20th, 15th, Westmoreland, Bristol, Cayuga, and Pine Sts., etc., 6,671 sq yd. vitr. brick, 12,368 sq.yd. granite block, 31, 674 sq.yd. asphalt, 12,251 sq.yd. concrete base, 74,492 cu.yd. earth excav., total $272,080.

W. Va., Lewisburg—Nov. 1, by Greenbrier Co., grading and draining 7½ mi. Blue Sulphur Turnpike from Palestine to Busters Store at Blue Sulphur Springs. J. W. Rader, co. engr., adv. this issue.

North Carolina—Oct. 20, by State Highway Comn., Raleigh, grading, draining, bridging and surfacing 4.3 mi. State Project 564, Hyde Co., 137,700 cu.yd. borrow excav., 1,172 ft. 18-24 in. concrete pipe, 11 350 cu.yd. topsoil, 466 cu.yd. Class A and 70 cu.yd. Class B concrete, 34 280 lb. reinforcing steel, 390 ft. untreated timber piles, $100,000, 9.83 mi. State Project 515, Nash and Franklin Counties, 5 acres clearing and grubbing, 58,700 cu.yd. common excav. and borrow, 1,574 ft. 15-24 in. concrete pipe, 25,900 cy.yd. topsoil, 580 cu.yd. Class A and 103 cu.yd. Class B concrete, 74,000 lb. reinforcing steel, 860 ft. untreated timber piles, etc., $54,000; grading, draining and topsoiling 11.22 mi State Project 513, Nash Co., 8 acres clearing and grubbing, 66,600 cu.yd. common excav. and borrow, 1.727 ft. 18-24 in. concrete pipe, 2,000 cu.yd. Drainage Ditches, 29,400 cy.yd. topsoil 120 cu.yd. Class B concrete, $40,000. C. M. Upham, state highway engr. Noted Aug. 25.

N. C., Rocky Mount—Oct. 18, 20,432 lin. ft. curbing 66,941 sq.yd. asphalt or bitulithic on concrete base. J. J. Wells, Rocky Mount, engr. adv. this issue.

Street and Roads (Continued)

Louisiana—Oct. 24, by Bd. Dir. State Highway Dept., Maison Blanche Annex, New Orleans, 4.84 mi. Alexandria-Melville Highway, in Avoyelles Parish, from Virginia to line of St. Landry Parish, also 14.51 mi. Melville-Alexandria Highway, in St. Landry Parish, from Palmetto to line of Avoyelles Parish. D. Buie, New Orleans, state highway engr.

O., Lakewood—(Cleveland, P. O.)—Oct. 22, by Bd. Educ., Warren Rd., grading, seeding, sodding, tiling lawn areas, building retaining wall and steps also laying brick driveways at Horace Mann School. $40,000. C. W. Hopkinson, Rose Bldg., Cleveland, engr.

O., Lakewood (Cleveland P. O.)—Oct. 22, by Bd. Educ. grading, seeding, sodding, tiling of lawn areas and laying cement walks and driveways, Emerson Jr. High School. $35,000. C. W. Hopkinson, Rose Bldg., Cleveland, engr.

Okla., Sulphur—Oct. 17, by City clerk, improving various streets, 18,315 sq.yd. 2 in. rock asphalt, 5,604 cu.yd. macadam excav., 864 lin. ft. combination curb and gutter, 1,640 lin. ft. single curb, 717 lin. ft. cement leader, 2,416 ft. 10-18 in. vitr. pipe, etc. E. T. Archer Co., New England Bldg., Kansas City, Mo., engrs.

Cal., El Centro—Oct. 17, by Bd. Supervs. Imperial Co., paving with cement concrete or Willite, 617,000 sq.ft. Brawley Calipatria highway.

Cal., Los Angeles—Oct. 17, by Bd. Superv. Los Angeles Co., paving, curbing and guttering 5,118 ft. Firey Ave. from Covina to Foothill Blvds., 9,093 sq.yd. concrete paving, 8,855 lin.ft. cement curbing, 35,330 sq.ft. concrete guttering, 16,845 cu.yd. earth excav., etc. Road Dept., Hall Records, engrs.

BIDS RECEIVED

R. I., Providence—Water Supply Bd. paving 4¾ mi. in Scituate, 450 ton asphalt, 1,600 cu.yd. concrete 51,000 sq.yd. bituminous macadam, 10,000 cu.yd. stone and 5,000 cu.yd. gravel foundation, 16,000 ton crushed stone base, 37,000 cuyd. earth and 15,000 cu.yd. rock rock excav., from Famiglietti Bros. Co., Bway., $238,500; J. Bristow, Narragansett Pier, $258,647; C. Bianchi & Co., Framingham. $266,778.

New York—H. S. Sisson, comr. State Highway Dept., 55 Lancaster St., Capitol, Albany, improving (1) 0.72 mi. Afton-Bainbridge, Highway 8075, Chenango Co., (2) 3.53 mi. Ticonderoga-Montcalm Landing, Highway 8073, Essex Co., (3) 1.09 mi. Little Falls-Stone House, Highway 8074 Herkimer Co., (4) 0.74 mi. Oxford-Chester, Highway 8076, Orange Co., (5) 1.07 mi Pearl River-New Jersey State Line, Highway 1604, Rockland Co., (6) 0.72 mi. Waterloo Village; North Rd.; Seneca Village Clinton St., Highway 1605, Seneca Co., (7) 6 mi. Corning-Hornby, Highway 1475, Steuben Co., (8) 4.16 mi. Hammondsport-Branchport, Part 1, Highway 8077, Steauben Co., (9) 7.13 mi. Port Jefferson-Riverhead, Part 3, Highway 8066 Suffolk Co., (10) 2.76 mi. Knollwood-Hawthorne, Westchester Co.; reconstructing (11) 2.91 mi. Rd. 5066, Rep. Contr. 3002, Cattaragus Co., (12) 4.51 mi. Rds. 105 and 1029, Rep. Contr. 3926, Schenectady Co., (13) 6.77 mi. Rd. 5215, Rep. Contr. 3014 Tioga Co., from D. J. Hoose, Oxford, (1) $50,957. A. Yesu & Son, 27 Carroll St., Binghamton (1) $52,371. Stento & Serafini, 84 Court St., Binghamton, (1) $53,360. F. E. Ellis, Melrose, Mass., (2) $144,171. J. Johnson Constr. Co., 965 Abbott Rd., Buffalo, (2) $144,936. E. J. Anderson Co., 36 State St., Albany, (2) $145,606 (7) $134,025. L. D. Sullivan Co., Inc., Utica, (3) $37,182. J. B. Fazio, 4 Leonard, St., Oneida, (3) $39,728. Koetteritz & Blakeslee, 547 East Main St., Little Falls (3) $39,853. Vonderborn & Rush, New York (4) $33,964. Armstrong & Trowbridge, Middletown, (4) $34 817. Schunnemunk Constr. Co., Highland Mills, (4) $35,915. C. Vanderbilt Genl. Contg. Co., West New Brighton, (5) $40,307. Sampson & Reuter, Elizabeth, N. J., (5) $40 682. G. M. Brewster & Sons, Tenafly, N. J., (5) $41,339. J. Johnson Constr. Co., 765 Abbott Rd., (6) $26,474, (8) $186,627. E. W. Foley Contg. Corp., Waterloo, (6) $26,959. J. E. Martin Constr. Corp., Utica. (6) $28,208. Sullivan & Di Pillo Constr. Co., Geneva, (7) $129 560, (8) $182,851. Horn & Devling, Galeton, Pa., (7) $134,132. J. J. Hart, Pittsburgh, (8) $188,722. World Industrials Corp., New York, (9) $242,722. Harrison Eng. & Constr. Corp., Ellicott Sq., Buffalo, (9) $242 841, (13) $198,319. F. Roeber Co., Inc., 507-5th Ave., New York, (9) $246,431. J. Dimando, Inc., 382 Mamaroneck Ave., Mamaroneck, (10) $113,694. J. J. Bellotte & Sons. Constr. Co., Troy. (10) $113,818. Malloy & Murray Contg. Co. & Petrillo Bros., Yonkers, (10) $116,966. A. A. Howard, Fairport, (11) $64,514. E. Gould, Brooklyn, (11) $65,140. Greenfield Constr. Co., 89 Main St., Hornell, (11) $65,408. Malloy Constr. Co., Schenectady, (12) $80,046. R. Hopkins, 824-2nd Ave. Troy, (12) $82,493. Amer. Pipe & Constr. Co., 112 North Broad St., Phila., (12) $85,031. Dale Eng. Co., Mann Bldg., Utica, (13) $193,679. Hendrickson-McCabe Constr. Co., Syracuse, (13) $196,105. Noted Sept. 29.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., regulating, grading and paving, etc. Rockaway Blvd. from New York Ave. to Nassau Co. line, from A. Paino, 2016 East 14th St., Brooklyn, $268,480; A. A. Johnson, Queens Blvd., $269,390; Bouough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $316,657. Noted Sept. 29.

N. Y., New York—H. H. Curran, pres. Manhattan Boro. Municipal Bldg., regulating and repaving (1) Commerce St., (2) Minetta Lane, etc., (3) East 56th St., (4) 97th St., (5) Liberty St. from Sicilian Asphalt Paving Co., 41 Park Row, (1) $7,125, (2) $7,383, (3) $15,308, (4) $22,319; Interboro Asphalt Co., 233 Bway., (1) $7,140, (2) $7,725, (3) $14,532, (4) $22,217; Brusstar Constr. Co., Harlem River and 150th St., (1) $7,945, (2) $8,778, (3) $15,327, (4) $23,019; Uvalde Asphalt Paving Co., 1 Bway., (1) $8,075, (2) $8,661; C. D. Beckwith, 301 West 108th St., (3) $16,413, (4) $22,909; Cleveland Trinidad Paving Co., Flushing, (3) $17,279, (4) $25,681; M. I. Sachs, 246 South 9th St., Brooklyn, (5) $22,856; P. J. Kearns Contg. Co., 2306 Creston Ave., (5) $23,224; J. Meehan & Son, 74 Courtlandt St., (5) $23,843. Noted Sept. 29.

N. Y., New York—Park Bd. at office of Dept. of Parks, Municipal Bldg., furnishing, setting and resetting curbstones and otherwise improving public driveway bebtween 155th and Dyckman Sts., from W. P. McDonald Constr. Co., 17 West 42nd St., $54,925; T. Crimmins Contg. Co., 126 East 59th St., $57 765; P. J. Kearns Contg. Co., 3206 Creston Ave., $67,067. Noted Sept. 29.

Kentucky—State Highway Dept., Old Capitol Bldg., Frankfort, shaping, draining and surfacing 1.4 mi. street in town of Stearns, McCreary Co., (a) bituminous macadam, (b) rock asphalt, (c) brick, from Connelly Constr. Co., Somerset, (a) $45,638, (b) $53,315, (c) $61, 805, G. M. Eady, Brook St., between A and Lee Aves., Louisville, (a) $59,702, (b) $68,608, Mills & Williams, Winchester, (b- $59,197, Tevis & Ingram, Danville, (c $58,252, Merrill Road Constr. Co., Vol. Life Bldg., Chattanooga, Tenn., (c) $61,805; 11mi. Brookville-Newport Rd., Bracken Co., from Godfrey & Milles, Brooksville, $60,114, S. M. Billiter, 407 Mer. Lib. Bldg., Covington, $62,312; 4.5 mi. Brookeville-Maysville Rd., Bracken Co., from Miler & Connelly, Brooksville, $47,111, F. A. Lervin, Latonia, $48,181, M. J. McClusky, Louisville, $60,737. Noted Sept. 22.

Ohio—Dept. Highways & Pub. Wks., Columbus, grading and paving 0.32 mi. Sect. "Medina North" Cleveland-Wooster Rd., Barber-Fortis Co. Warren Monolithic brick, $22,879, bituminous macadam, $18,295. rein-con., $19,884; G. S. Mellert, Medina, monolithic brick, $23,562, bituminous macadam $18,858 rein-con., $19 991; 0.41 mi. Sect. "Seville" Cleveland-Wooster Rd., Medina Co., R. U. An, Mansfield, brick, $30,998, bituminous macadam, $23,215, Dorris Constr. Co., Akron, brick, $31,883, rein-con., $25,582, F. J. Mann & Sons, Ashtabula, brick, $31,884, rein-con., $26,647. Peters & Beard Wadsworth, bituminous macadam, $23,443.

O., Lakewood—(Cleveland P. O.)—Paving Richland Ave. from Madison Ave. to Fisher Rd., 3,800 cu.yd. earth excav., 3,650 ft. stone curb and 3,975 sq.yd. asphalt, from Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria, $32,229; Cleveland Trinidad Paving Co., The Arcade, Cleveland, $34,412.

O., Lakewood—(Cleveland, P. O.)—Paving (1) Lakeland Ave. from Madison Ave. to West Adams St., 4,130 sq.yd. asphalt, etc., (2) Parkwood Ave. from Franklin to West Madison Aves. also Chesterland Ave. from Madison Ave. to Fisher Rd., 5,200 sq.yd. asphalt and 4,800 ft. stone curb, etc., from Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria, (1) $29,554, (2) $55,735; Cleveland Trinidad Paving Co., The Arcade, Cleveland, $31,458, (2) $56,067.

Kan., Troy—Doniphan Co., paving, grading, draining and building bridges on 2½ mi. Pike's Peak Highway, Federal Aid Project 87, concrete, from P. P. Young, St. Joseph, Mo., $98,553. Noted Sept. 8.

Tex., Livingston—Polk Co. clearing, grubbing, grading, surfacing and draining 9.7 mi. State Highway 35, from N. B. Gregory, Texarkana, $151,299; Smith Bros., Crockett, $172,457. Noted Sept. 15.

Cal., Los Angeles—Bd. Supervs. Los Angeles Co., paving, curbing, guttering and building culverts on 7 streets in Rd. Dist. 198, from Fleming Constr. Co., 105 North Park Ave., Pomona, $70,000; W. D. McCray, 424 Amer. Bank Bldg., $74,000; P. L. Ferry, 614 East Acacia St., Glendale, $80,000. Noted Sept. 22.

Cal., San Diego—Paving Lytton, Chatsworth, Catalina, Voltaire and Rosecrans Sts., (1) 14,440 cu.yd. excav., (2) 14,002 cu.yd. embankment, (3) 384,225 sq.ft. paving, (a) 1½ in. Warrenite bithulic wearing surface on 3 in. asphaltic concrete base, (b) ¼ in. asphaltum and stone screenings wearing surface on 5 in. Portland cement concrete base, (4) 1,994 lin.ft. concrete curb, from Warren Constr. Co., San Francisco, (1a) $.946, (2) $.44, (3a) $.255, (4) $1.13, total $123,910; G. R. Daley, McNeece Bldg., San Diego, (1) $.81, (2) $.12, (3b) $.274 (4) $.80, total $124,820. Noted Aug. 11.

CONTRACTS AWARDED

Massachusetts—Dept. Pub. Wks., Div. Highways, State House, Boston, 7,400 ft bituminous macadam highway in Agawan, 18 ft. wide, to Hassan Paving Co., 17 Federal St., Worcester, $38,704; 8,450 ft. gravel highway in Gill, 18 ft. wide, to A. Pallatto, Dracut $30,767; 1,750 ft. bituminous macadam highway in Bernardston 18 ft. wide, to Lane Constr. Co., 37 Colony St., Meriden, Conn., $14,021.

Massachusetts—State Highway Comn., Boston, paving 4,140 ft. bituminous macadam highway in Egremont, 18 ft. wide, to D. S. McGrath, Inc., Sumner St., Adams, $36,422; 1,350 ft. bituminous macadam highway in Seekonk, 18 ft. wide, to Germain & Staples, North Attleboro, $7,493.

Mass., Boston—Paving Beacon St. from Market beyond Parsons St., asphaltic concrete, to J. Kelly Co., 5 Ulmer St., Roxbury, $41,201.

R. I., Providence—Paving 4 mi. Danielson Pike, macadam with topeka top surfacing, to Lane Constr. Co., 35 Colony St., Meriden, Conn.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, regulating and paving Roosevelt Ave. from 5th St. to Junction Ave., to H. J. Mullen Contg. Co., Fulton St. and Twombly Pl., Jamaica, $70,547; Roosevelt Ave., from Junction Ave. to angle point east of Alburtis Ave., to Trinidad Paving Co., Flushing, $17,702. Noted Oct. 6.

N. J., Jersey City—Paving 18 blocks Brunswick St. from 10th to Grand Sts., to Willite Rd. Constr. Co. of Michigan, 51 Chambers St., New York, 87% of engineers estimate ($64,540); 6 blocks Wade St., 4 blocks Cator Ave. between Fowler St. and West Side Ave. and 6 blocks Woodlawn Ave., sheet asphalt on concrete base to W. T. S. Critchfield, 14th St., Hoboken, 79.9% ($35 361), 78¾% ($42,076) and 79.9% ($29,843) respectively. Noted Sept. 1 and 22.

Pennsylvania—State Highway Dept., Harrisburg, 10,576 ft. Armstrong Co., to D. McNeil Co., 6120 Jenkins Arcade Bldg., Pittsburgh, $99,210; 24,787 ft. Crawford Co., to S. Gamble Co., Glass St., Carnegie, $213,164; 5,919 ft. Beaver Co., to S. D. Markley, 1301 Allegheny Ave., New Brighton, $53,226; 2,100 ft. Jefferson Co., to J. Weisner, St. Marys, $20,279; 2,545 ft. Beaver Co., to H. V. Kirker Co., 317 9th St., Beaver Falls, $23,120; 1,613 ft. Mifflin Co., to J. M. Hutchinson, Greenwood Ave., Altoona, $11,371; 18,161 ft. Crawford Co., to D. Schoentag, Myersdale, $141,171; 3,220 ft. Lawrence Co., to McDermott & Hannon, Niles, O., $52,510; 7,014 ft. Beaver Co., to J. C. Devine Co., Alliance, O., $71,914; 5,063 ft. Beaver Co., to G. S. White, 7119 Jenkins Arcade Bldg., Pittsburgh, $55,132; 1,635 ft. Erie Co., to Warren Bros., 9 Cambridge St., Boston, Mass., $27,824.

Virginia—State Highway Dept., Richmond, having 6.5 mi. State Rd. 21, between Greenwich and Milford Mill, bituminous macadam, State Project 130, Prince William Co., to Hyde & Baxter, 1311 G St., N. W., Wash., D. C., $132,244; 3.85 mi. State Rd. 10, west of Farmville, concrete, State Project 76A, Prince Edward Co., to W. W. Boxley & Co., Roanoke, $101,688; 12.9 mi. between Jackson Ferry and Hillsville, water-bound macadam, State Project 111, Carroll Co., to Albert Bros., Shaws-

Streets and Roads **(Continued)**

ville, $160,000; top soiling 8.26 mi. State Rd. 12, between Five Forks and Patricks Co. line, State Project 133, Henry Co., to Jamison Bros., Rustburg, $39,607. Noted Oct. 6.

North Carolina—State Highway Comn., at div. office Asheville, clearing, grubbing, draining, grading and topsoiling (1) 12.98 mi. State Project 545, Graham Co., (2) 12.4 mi. State Project 548, Clay Co., to L. J. Smith Constr Co., Charlotte, (1) $131,450, (2) $67,383; clearing, grubbing, draining, grading, and gravel surfacing 10.33 mi. State Project 534, Cherokee Co., to Wells Constr. Co., Asheville, $62,080; clearing grubbing, grading, draining and paving 13.8 mi. State Project 557, Madison and Yancey Counties, to R. H. Wright & Sons, Asheville, $178,595. Noted Sept. 29 and Oct. 6.

North Carolina—State Highway Dept., at div. office Charlotte, grading, draining and paving with topeka on 5 in. concrete base, 3.02 mi. State Project 630 A, Gaston Co., to W. F. McCanless, Charlotte, $89,440. Noted Sept. 29.

N. C., Durham—Grading, draining, curbing and paving from 45,000 to 70,000 sq. yd. streets, to Murray Const. Co., Holston Natl. Bank Bldg., Knoxville, Tenn., $280,000. Noted Aug. 18.

Kentucky—State Highway Dept., Old Capitol Bldg., Frankfort, shaping, draining and surfacing with bituminous concrete 7 mi. Richmond-Lexington Rd., Madison Co., to Carey-Reed Co., 229 West Short St., Lexington, $230,111; shaping and draining 8.9 mi. Louisville-Paducah Rd., Union Co., to Costello Bros. & Mays, Knoxville, Tenn., $36,041, 9.8 mi. Pikeville-Williamson Rd., Pike Co., to Dempster Constr. Co., 721 North Central St., Knoxville, Tenn., $246 345, 12.7 mi. Louisville-Paducah Rd., Breckenridge Co., to J. C. Williams, Winchester $114,470, 7 mi. Louisville-Paducah Rd., Hancock Co., to J. Williams, Winchester, $85,765, 18.7 mi. Mayo Trail, Lawrence Co., to R. G. Hill & Co., New Tazewell, Tenn., $246,115. Noted Sept. 22.

La., Hahnville—Police Jury St. Charles Parish, 6 mi. gravel road on east bank of river from Destrahan to St. John Parish line, to Burton & Bolan, Waggaman, $39,618.

Tenn., Erwin—For 20,000 sq.yd. 2 in. asphalt on 5 in. concrete base, to Murray Constr. Co., Holston Natl. Bank Bldg., Knoxville, $60,000. Noted July 7.

O., Cleveland—Paving Elbow Bassett Rd., to Baldwin Bros., 4500 Euclid Ave., $105,537. Noted Oct. 6.

O., Euclid—Paving Shoreham Dr., asphalt, to Cleveland Trinidad Paving Co., The Arcade, Cleveland, $23,748; sewer, to A. C. Hattendorff, Stop 14, $4,201. Noted Sept. 29.

O., Osborn—Osborn Removal Co., grading, graveling, etc., to Geiger & Dill, 409 Dayton Savings & Trust Bldg., Dayton, $57,800. Noted Sept. 22.

Mich., Detroit—To Detroit Asphalt Paving Co., 20 McGraw Bldg., paving Burnette Ave., $37,419, Morrell Ave., $17,111, McDonald Ave., $29.464, Scovel Pl., $7,388; Reading Corp., 413 West Fort St., Alley 1378, $7,071, Alley 1382, $2,724; F. Porath, Jr., 305 Free Press Bldg., Alley 1379, $4,817; T. E. Currie, 20 McGraw Bldg., Alley 1380, $4,118; A. F. Lester, 309 Sun Bldg., Alley 1381, $3,394, Alley 1383, $2,391, Alley 1387, $2,237; DeLisle & Cooper, 402 Ford Bldg., Alley 1384, $2,624; G. Nunn, 6409 3rd Ave., Alley 1385, $2,741, Alley 1389, $3.298; J. Porath, 34 McGraw Bldg., Alley 1386, $2,615; R. J. Powelson Co., 6445 Iroquois Ave., Alley 1388, $3,720. Noted Sept. 29.

Mich., Detroit—To A. F. Lester, 309 Sun Bldg., paving Alley 1390, $7,322, Alley 1394, $1,607, Alley 1395, $7,174, Alley 1397, $1.598; DeLisle & Cooper, 402 Ford Bldg., Alley 1391, $4,781; R. J. Powelson Co., 6445 Iroquois Ave., Alley 1392, $3.202; Otis Cement Constr. Co., 806 Hammond Bldg., Alley 1393, $1,809; G. Nunn, 6409 3d Ave., Alley 1396, $2,167; F. Porath, Jr., 305 Free Press Bldg., Alley 1398, $1,870; Cleveland Trinidad Paving Co., 402 Hammond Bldg., Wabash Ave., $15,116. Noted Oct. 6.

Illinois — Dept. Pub. Wks. and Bldgs., Div. Highways, Springfield, paving (1) 4.18 mi. Route 3, Sect. 53, Greene Co., (2) 7.68 mi. Route 3, Sect. 6 Cass Co., (3) 6.71 mi. Route 4, Sect. 3, Will Co., (4) 7.86 mi. Route 4, Sect. 15, McLean Co., (5) 6.1 mi. Route 5, Sect. 17, Winnebago-Stephenson Co., (6) 4.49 mi. Route 5, Sect. 18, Stephenson Co., (7) 2.87 mi. Route 5, Sect. 6-A, Cook Co., (8) 2.61 mi. Route 5, Sect. 7, Cook Co., (9) 0.46 mi. Route 6, Sect. 7-A, De Kalb Co., (10) 6.78 mi. Route 10, Sect. 10, Piatt-Macon Counties, (11) 3.64 mi. Route 15, Sect. 2, St. Clair Co., (12) 4.83 mi. Route 15, Sect. 3, St. Clair-Clinton Counties, (13) 6.51 m. Route 18, Sect. 11, Kane-Du Page Counties, (14) 6.81 mi. Route 23, Sect. 1, La Salle Co., (15) 3.43 mi. Route 23, Sect. 28, De Kalb Co., (16) 7.49 mi. Route 25, Sect. 6, Clay Co., (17) 5.24 mi. Route 28, Sect. 1, Knox Co., (18) 4.73 mi. Route 28, Sect. 2, Knox Co., (19) 4.36 mi. Route 31, Sect. 7, Brown Co., (20) 1.11 mi. Route 37, Sect. 5, Franklin Co., (21) 1.44 mi. Maint. 35 and 36, Cook Co., (22) 0.33 mi. Maint. C, Cook Co.; grading (23) 1.52 mi. Route 18, Sect. 13-A, Kendall Co., (24) 3.17 mi. Route 18, Sect. 14-A, Kendall Co., to J. Kesl & Son, Edwardsville, (1) $91,773, Cameron & Joyce, Keokuk, Ia., (2) $160.243. Powers-Thompson Constr. Co., Joliet, (3) $151,704. H. K. Rhoades, Lincoln, (4) $148,526. C. C. Vanderboom & Sons, Ripon, Wis., (5) $141,177, (6) $98,823. C. E. Giertz & Son, Elgin, (7) $46,400, (8) $57,128. W. A. Jaicks, 232 East Pearson St., Chicago, (9) $9,925, (13) $134,249, (15) $77,760. C. W. Clarke, 7-11 Staats-Raynes Bldg., Clinton, Ind., (10) $131,990. Frazier-Davis Constr. Co., Arcade Bldg., St. Louis, Mo., (11) $81,758, (12) $110,060. Keokuk Quarry & Constr. Co., Keokuk, Ia., (14) $158,795, (19) $99,483. Stressenreuter Bros., 3020 South Halstead St., Chicago, (16) $166,178. L. S. Kuhn, Bloomington, (17) $115,747, (18) $105,518. Shidler Constr. Materials Co., Kankakee, (120) $24,349. J. A. Sackley, 133 West Washington St., Chicago, (21) $33,566. Farmer & Laing, Highland Park, (22) $6,227, B. F. Harrison, Poor Farm Rd., Decatur, (23) $5,345, (24) $45,659. Noted Aug. 18 and Sept. 1.

Ill., Decatur—Paving various streets asphalt on concrete base, to Birt & Driscoll, Decatur, $30,000.

Ill., Elgin—Resurfacing various streets, Dist. 1, 43,000 sq.ft. asphalt, to Farmer & Laing, Highland Park, $35,394. Noted June 9.

Ill., Ottawa—Paving various streets Portland cement on concrete base, to Powers-Thompson Constr. Co., Joliet, $52,420. Noted Sept. 15.

Ia., Des Moines — Paving Court Ave., portland cement, to Lytton Constr. Co., Securities Bldg., $3.05 per sq.yd.; West Locust St., T. Carey & Sons Youngerman Bldg., $25,000; Jackson Ave., class D brick on concrete base, Wright Constr. Co., 211 Flynn Block, $3.84 per sq.yd.

Ia., Waterloo—Paving portions Lyndale and Oakland Aves., asphaltic concrete, to Bryant Paving Co., Black Hawk Bldg., $3.31 per sq.yd., total $78,000. Noted Sept. 15.

Minnesota—State Highway Dept., 920 Guardian Life Bldg., St. Paul, improving 5.65 mi. State Project 10-37, east of Wayzata, Hennepin Co., to Day Deveau Motor Transport Co., Quincy and Sumner Sts., Minneapolis, $31,897. Noted Sept. 16.

Minn., Brainerd—Crow Wing Co., gravel surfacing State Rd. 3, Job 2004, to Minnesota Rural Express Co., Montivedo, $12,000; State Rd. 8, Job 1910, to Sewell & Patton, Ironton, $5,000; State Rd. 1, Job 1908, to Minnesota Rural Express Co., Montivedo, $4,000; grading State Rd. 1, Job 2105, to P. W. Roark Constr. Co., Thief River Falls, $12,500. Noted Aug. 4.

Kan., Emporia—Lyons Co. grading and draining 4.05 mi. Santa Fe Trail, Sect. A, 18 ft. wide, to List & Westherly, Kansas City, Mo., $138,858; 5.988 mi. Santa Fe Trail, Sect. D, also Dry Creek Bridge, to Maxwell Constr. Co., Columbus, $26,056 and $8,330 repectively; Ludy Creek Bridge Sect. K, to W. M. Grimmitt, Americus, $5,210; Beaver Creek Bridge, Sect. K, to C. C. Baker, Humboldt, $2,600. All Federal Aid Project 30. Noted Sept. 8.

South Dakota—State Highway Comn., grading and draining 14.6 mi. Federal Aid Project 83, 24 ft. wide, Kingsbury Co., to L. E. Gage, 1408 South Glendale Ave., Sioux Falls, $24,897.

S. D., Watertown—Paving Maple St., N., and 3rd St. N. W., 16,000 sq.yd. concrete, to C. H. Atkinson Paving Co., Watertown, $2.62 per sq.yd., total $54,403. Noted Aug. 11.

Mo., Jefferson City—Surfacing High St., bituminous macadam on concrete base, to J. Pope, Jefferson City, $32,684. Noted Sept. 22.

Mo., Maplewood—Paving Zypher Pl., to C. M. Berry, Webster Groves, $25,000. Noted Oct. 6.

Tex., Cameron—Milam Co. clearing, grubbing, grading, surfacing and draining 8.21 mi. State Highway 44, to Kurkendall & Shelton, Temple, $43,842. Noted Oct. 6.

Colorado—State Highway Dept., Denver, gravel surfacing 3.158 mi. road between Craig and Hayden, Federal Aid Project 188, Moffat Co., to Hinman Bros., Kremmling, $24,761. Noted Oct. 6.

Idaho, Payette—Grading, draining and paving Impvt. Dist., 5, to C. H. Helmer, Payette, $31,000.

California—State Highway Dept., 515 Forum Bldg., Sacramento, paving with asphaltic concrete 1.9 mi. highway between Tuolumne River Bridge and 1.2 mi. north of Ceres, Stanislaus Co., to Standard Paving Co., Modesto, 2,100 tons asphaltic concrete, $6.74 per ton, total $14,154; 10 mi. highway between south line Sect. 19 and 13 mi. south of Bakersfield, Kern Co., to Southwest Paving Co., Washington Bldg., Los Angeles, 10,680 tons asphaltic concrete $4.49 per ton, total $47,593; grading 10 mi. highway, San Luis Obispo Co., to Blake & Heany, Oakland, 169,500 cu.yd. excav., $0.62 per cu.yd., 1,750 cu.yd. Class A Portland cement concrete (in culverts and monuments), $23, 3,000 cu.yd. rip-rap slope pavement, $1.50, total $161,712; paving 15.7 mi. highway between Summit and Victorville, San Bernardino Co., to R. T. Shea & Co., Riverside, 62,000 cu.yd. excav., $0.90, 55 cu.yd. Class A Portland cement concrete (in culverts and monuments), $30, 50,000 ton broken tsone pavement, $3, 700 ton oil asphalt Grade E $17.50, total $226,219. Noted Sept. 22.

Cal., Huntington Beach—Paving 2nd and 3rd Sts., Lake Ave. and alleys in blocks 104, 203 and 204, to S. Finley, Santa Ana, $45,439.

Que., Montreal—to Duranceau & Duranceau, 152 Hamilton St., sidewalks on Walkely and Mozart Aves., $10,432; to Rendeau & Culier, Montreal, St. Charles, Lasalle, Sacre Coeur, St. Lawrence and Amherst Aves., $17,837. Noted Sept. 22.

Industrial Works

PROPOSED WORK

N. Y., Brooklyn—Goetz Co., Livingston St., soon lets contract 10 story, brick, steel and concrete warehouse and office addition. $750,000. Ballinger Co., 47 West 34th St., New York, archts. and engrs.

N. Y., Utica—State Hospital Comn., Capitol, Albany, soon takes bids 2 story, 70 x 111 ft. cold storage building and storehouse, brick and steel, also 1 story, 38 x 155 ft. kitchen building, rein.-con. and brick, concrete foundations, at Marcy Div. State Hospital, here. $130,000 and $84,000 respectively.

N. J., Secaucus—Fulton Lumber Terminal Co., 21 East 40th St., New York, having plans prepared by Andrews, Tower & Lavelle, archts. and engrs., 21 East 40th St., New York, brick, steel and concrete terminal, rein.-con. flooring, concrete pile foundation, here. $500,000.

Pa., Johnstown—Peris Soap Products Co., South Sheridan St., plans 3 story, 80 x 320 ft. concrete, brick and steel factory, rein.-con. flooring, South Sheridan St., $150,000.

Pa., Phila.—Plans stables and repair shops for Police Dept. $250,000. Address F. M. Cortelou, dir. Police Dept.

O., Alliance—Alliance Machine Co., South Mahoning Ave., plans 1½ story, 50 x 250 ft. forge factory, also pattern shop and improvements to present plant. $100,000.

O., Cleveland—R. B. Mehling Co., 1269 East 105th St., plans 2 story, 70 x 120 ft., brick and steel garage and commercial building, plain foundation, Hayden Ave. near Woodward Rd. $60,000. Private plans.

O., East Cleveland (Cleveland P. O.)—Austin Co., 16112 Euclid Ave., had plans prepared 1 story, 90 x 181 ft., brick, steel and concrete factory, rein.-con. flooring, plain foundation, 1615 Collamar Ave. $60,000. Private plans.

Mich., Detroit—Wolverine Storage Co., 210 Holden Bldg., had plans prepared, 8 story, 81 x 138 ft. rein.-con., brick and steel warehouse, rein.-con. flooring, concrete foundation, Jefferson and Terminal Aves., $300,000. Mildner & Eisen, 924 Hammond Bldg., archts.

Mich., Grand Rapids—Grand Rapids Show Case Co., Ottawa Ave. and Colbrook St. N. W., had plans prepared by H. L. Mead, archt., Grand Rapids, 5 story, 102 x 132 ft. rein.-con., brick, steel and stone plain foundation. $75,000.

Industrial Works (Continued)

Ill., Momence—Merit Tent & Awning Co. plans 2 story factory, brick and steel. $50,000. Architect not selected.

Ill., Zion—Zion Institutions and Industries, c/o W. H. Glendinnen, mgr., Administration Bldg., having plans prepared 1 story, 100 x 140 ft. garage, brick and steel. $50,000. Architect's name withheld.

Wis., Milwaukee—Amer. Hide & Leather Co., 658 Commerce St., plans tannery, including main building, power house and bark house, to replace plant recently destroyed by fire. Loss $1,500,000. Architect not selected.

Wis., Milwaukee—Ellis Lumber Co., 881 Clinton St., plans to rebuild upper portion of 2 story, 100 x 150 ft., brick and timber warehouse on Clinton St., which was recently destroyed by fire. $50,000. Architect not selected.

Minn., Minneapolis—Strutwear Knitting Co., c/o W. A. Strutwear, secy., 731 East 14th St., having plans prepared by Long, Lamreaux & Thorshov, archts., 1028 Andrus Bldg., 5 story, 160 x 250 ft., rein.-con., brick and tile factory, 11th Ave. S. and 6th St. $200,000.

Minn., Red Wing—W. F. Zimmerman interested in syndicate which plans to build vinegar factory. $150,000. Architect not announced.

Mo., Kansas City—Artzcraft Broom Co., 1423 Kansas Ave., having plans prepared by C. A. Smith, archt., Finance Bldg., 2 story, 65 x 127 ft., brick and steel factory, 14th St. and Kansas Ave. $75,000.

Neb., Omaha—Billings Dental Co., 17th and Douglas Sts., having plans prepared by C. W. Steinbough, archt., Brandeis, Theater Bldg., 3 story, 50 x 108 ft., rein.con., brick and stone factory and salesroom, 1804 Capital Ave. $80,000. E. P. Billings, mgr.

N. B., Bathurst—Bathurst Co., Ltd., having plans prepared by R. K. Meade & Co., engrs., 11-13 East Fayette St., Baltimore, Md., rein.-con. lime plant and rein.-con. coal pocket, here.

BIDS DESIRED

Conn., Stamford—Mathison Motor Sales Co. receiving bids 1 story, 75 x 154 ft., brick and steel garage and service station, rein.-con. flooring, plain foundation, Grove St. $40,000.

Pa., Phila.—Oct. 25, by M. O. Malley, 818 North 16th St., 1 story, 40 x 140 ft. brick and steel garage, rein.-con. flooring, plain foundation, 1522-24 Parrish St. $45,000. Clarke & Dudnick, Drexel Bldg., archts.

O., Piqua—Valdecker Packing Co. receiving bids 2 story, 29 x 49 ft., brick and steel plant, plain foundation. $40,000. Anders & Reimers, Erie Bldg., Cleveland, archts. and engrs.

Ill., Centralia—Oct. 20, Chicago, Burlington & Quincy R.R. Co., 542 West Jackosn St., Chicago, 1 story roundhouse, 105 ft. long, brick and mill construction also 400-ton concrete and steel coal chute, with mechanical equipment, here. $125,000. W. T. Kuausch, archt., c/o owner.

Wis., Milwaukee—A. C. Eschweiler, archt., 141 Wisconsin St., receiving bids 1 story, 120 x 120 ft. garage, brick and concrete, rein.-con. flooring, plain foundation, Masion and Van Buren Sts., for Dort Motor Co., 242 4th St. $40,000. Noted Sept. 29.

Mo., Kansas City—Oct. 18, by C. B. Sloan, archt., 321 East 11th St., 6 story, 60 x 110 ft., rein.-con. and brick warehouse, Independence St. and Benton Ave. for Perky Bros. Transfer & Storage Co., 2431 Prospect Ave., $175,000. Noted Sept. 15.

CONTRACTS AWARDED

Pa., Phila.—T. Abbotts & Co., Barkley and Wayne Aves., 3 story, 73 x 170 ft. factory on 23rd and Allegheny Aves., to J. N. Gill & Co., Otis Bldg., $142,000.

Pa., Phila.—O. Nebel, 3860 Coral St., 3 story, 58 x 215 ft. rein.-con., brick and steel factory, rein.-con. flooring, plain foundation, 5th and Courtland Sts., to H. P. Schneider, 3713 York Rd., $100,000.

Pa., Pittsburgh—Fried & Reineman Packing Co., 1314 Spring Garden Ave., 2 story, 40 x 70 ft. brick and steel plant, to Cuthbert Bros., Bessemer Bldg., $50,000.

Pa., Wilkes-Barre—Hess-Goldsmith, 239 4th Ave., New York, 1 story, concrete, brick and steel mill, rein.-con. flooring, concrete foundation, Ash St. and Daisy Lane, to Nanticoke Constr. Co., Nanticoke, $165,000.

O., Canton—Amer. Mine Door Co., 9th St. and Robin Court, S. E., 1 story, 50 x 150 ft., brick and steel factory, plain foundation, to Austin Co., 16112 Euclid Ave., Cleveland, $75,000.

Ill., Sterling—P. W. Kempster will build 1 story, 50 x 142 ft., garage, brick and steel. $40,000. Owner will build. Noted Oct. 6.

Wis., Kenosha—Sommers Farm Co., c/o P. J. Myers, Main St., Racine, 1 story, 44 x 110 ft. warehouse, concrete, rein.-con. flooring, plain foundation, south of city limits, here, to J. Sorenson, 1805 West 6th St., Racine. $40,000.

Wis., Madison—University of Wisconsin, 1 story addition to service building and electric substation, brick and concrete, rein.-con. flooring, plain foundation, to J. Finndorff & Sons, West Wilson St., $66,366. Noted Oct. 6.

Wis., Milwaukee—C. Kalinowski, 1178 7th Ave., 2 story, brick and concrete bakery, rein.-con. flooring, plain foundation, 8th Ave., to J. Czaplewski, 927 13th Ave., $40,000. Noted Sept. 22.

Wis., Milwaukee—Lincoln Investment Co., c/o J. H. Esser, archt., 82 Wisconsin St., 1 story, 80 x 132 ft., brick and concrete garage, rein-con. flooring, plain foundation, Keefe Ave., to P. Riesens Sons, 1018 Humboldt Ave., $40,000.

Mo., Clarence—A. Burnett, c/o Clarence Auto Co. 1 story, 100 x 140 ft., brick and steel garage. $50,000. Work will be done by day labor. Burgher Bros., Hannibal, archts. Noted Sept. 1.

Okla., Oklahoma City—P. H. Anthony, archt., Waldheim Bldg., Kansas City, Mo., 2 story, 100 x 150 ft. bakery, 39th and Oak Sts., to C. M. Dunning Constr. Co., Herskowitz Bldg., for Smith Baking Co., 437 Oak St. $150,000. Noted Sept. 29.

Buildings

PROPOSED WORK

Mass., Athol—Town Hall—Rejected bids 2 story, 50 x 125 ft. with 50 x 80 ft. ell. Main St. $200,000. Project postponed until 1922.

Conn., Norwich—Ward—Norwich State Hospital for Insane had plans prepared by Cudworth & Thompson, archts., Thayer Bldg., 2½ story, 100 x 195 ft., brick and concrete. $250,000. Noted July 14.

N. Y., Brooklyn — Hospital — Wyckoff Heights Hospital, Wyckoff Ave., plans 5 story, brick, steel and stone addition, concrete pile foundation. $300,000. Architect not selected.

N. Y., Brooklyn—Office, etc.—See "Industrial Works."

N. Y., New York—Amusement Hall—State Hospital Comn., Capitol, Albany, soon takes bids 65 x 124 ft. rein.-con. and brick, concrete foundation, Manhattan State Hospital, Wards Island, here. $150,000.

N. Y., New York—Apartment—Doclin Realty Co., 280 Fort Washington Ave., having plans prepared by Gronenberg & Leauchtag, archts. and engrs., 303 5th Ave., 5 story, 84 x 100 ft., brick, steel and stone, concrete pile foundation, Wadsworth Terrace near 190th St. $350,000.

N. Y., New York—Corn Exch. Bank, 13 William St., having plans prepared by S. E. Gage, archt. and engr., 28 East 49th St., 1 story, 50 x 100 ft., brick, steel and stone concrete pile foundation, 543 Cathedral Parkway. $150,000.

N. Y., New York—Synagogue—Congregation Gemilith Chasidom, 494 Claremont Parkway, soon takes bids 3 story, brick, steel and stone, concrete pile foundation, Washington Ave. and 174th St. $150,000. S. F. Oppenheim, 36 8th Ave., archt. and engr.

Pa., Phila.—Apartment and Store—S. F. Fretz, 1305 Oak Lane Ave., having preliminary plans prepared by C. F. Neff, archt., 1200 Locust St., 2 and 3 story, 160 x 170 ft. on Broad St. and Old York Rd. $250,000.

Pa., Sharon—Lodge Home—Moose Lodge 292, soon takes bids, 3 story, State and South Main Sts., $200,000. W. A. Ullom, Farrell, archt.

Pa., Wayne—High School—Randor Twp., c/o J. C. Egbert, having plans prepared by C. H. Richards, archt., 608 Chestnut St., Phila., 3 story brick and steel, rein.-con. flooring, plain foundation, Lancaster and Wayne Aves. $250,000.

Va., Staunton—Hotel—A. T. Moore, c/o H. L. Stevens Co., archts. and engrs., 522 5th Ave., New York, having sketches made, brick, steel and stone, concrete pile foundation, here. $450,000.

W. Va., Charleston—Temple and Theater—Beni-Kedem Temple, A. A. O. N. M. S., takes bids about Jan. 1, 3 story, 100 x 240 ft., brick, stone, steel and marble, Kanawha St. $600,000. C. W. and G. L. Rapp, 190 North State St., Chicago, archts.

W. Va., Wayne—Court House—Wayne Co. plans 3 story, probably brick and stone. $200,000. Architect not selected.

La., Alexandria—Temple—Oliver Lodge 84, F. & A. M. plans temple, $250,000.

La., New Orleans—Seminary—Catholics of city and state purchased site and had plans prepared by A. Owen, archt., Interstate Bldg., for seminary, here. $1,000,000 raised for building and endowing. Bishop J. W. Shaw, chn. of com.

Ky., Frankfort—Hotel—New Capitol Hotel Co., having plans prepared by F. L. Packard, archt., New Hayden Bldg., Columbus, O., 4 story, 100 x 150 ft., concrete, brick and steel. $200,000.

O., Dayton—Dormitory—University of Dayton plans 4 story, 100 x 200 ft., brick and rein.-con., rein.-con. flooring, concrete foundation, University Grounds. $275,000. J. A. Tetzlaff, pres. Architect not selected.

O., Van Wert—Church—First Presbyterian Church having plans prepared by W. H. Nicklas, archt., 1900 Euclid Ave., Cleveland, 1 story, steel and stone. $200,000.

Ind., Evansville—Office—Stock company, c/o P. J. Bradshaw, archt., International Life Bldg., St. Louis, Mo., had sketches made 15 story, brick and steel, 3rd and Main Sts. $1000,000.

Mich., Detroit—Club—Slovak Home Assn., c/o P. R. Rossello, archt., 406 Congress Bldg., having plans prepared 2 story, 100 x 120 ft., rein.-concrete, brick and steel, rein.-con. flooring, plain foundation, Frontenac Blvd. $150,000.

Mich., Detroit—Hospital—Michigan Workmen Compensation Insurance Co., c/o M. R. Burrowes, archt., 2631 Woodward Ave. and Stratton & Snyder, archts., Union Trust Bldg., having plans prepared, 6 story, 43 x 126 ft., 45 x 60 ft., concrete, brick and steel, rein.-con. and wood flooring, plain foundation. $500,000.

Mich., Detroit—Memorial Hall—Election November, $5,000,000 bonds, rein.-con., brick steel and stone 2nd Blvd. and Putnam St. Architect not selected.

Mich., Detroit—Office—Wayne Co., County Bldg., plans 3 story, brick and stone, Fort and Randolph Sts. $750,000. Smith, Hinchman & Grylls, 710 Washington Arcade, engrs.

Mich., Kalamazoo—College—Bd. Trustees Kalamazoo College having plans prepared by A. Kahn, archt., 1000 Marquette Bldg., Detroit, for library, chapel, science dormitory, auditorium and administration buildings, rein.-con., brick, steel and stone, rein.-con. flooring, concrete foundations, on campus. $1,800,000.

Mich., Marysville—Theatre and Store—G. Zanfer, c/o P. R. Rossello, archt., Congress Bldg., Detroit, having plans prepared 1 story, 122 x 170 ft. brick, steel and stone, brick foundation. $150,000.

Mich., Traverse City—High School—Bd. Educ. having plans prepared by F. S. Batterson, archt., Kalamazoo, 3 story, rein.-con., brick and steel, rein.-con. flooring, plain foundation. $300,000.

Ill., Evanston—Apartment and Store—Nazarian Bros., 1726 Sherman Ave., Chicago, having plans prepared by R. C. Harris, archt., 190 North State St., Chicago, 3 story, rein.-con., brick and stone Clark St. and Sherman Ave. here. $160,000.

Ill., Kankakee — Community House — First Methodist Church having plans prepared by Lowe & Bollenbaker, archts., 108 South La Salle St., Chicago, 2½ story, rein.-con., brick and stone. $175,000.

Ill., North Chicago—School—Bd. Educ. plans 2 story, rein.-con., brick and stone. $150,000. C. Neil, pres. Architect not selected.

Ill., Pana—Schools—Bd. Educ. plans two 2 story, rein.-con., brick and stone. $150,000 each. E. L. White, pres. Architect not selected.

Ill., Quincy—Theatre and Office—Pinkelman & Cory, Gem Theatre Bldg., having plans prepared by D. S. Klafter, archt., 64 West Randolph St., Chicago, 8 story, rein.-con., steel, brick and stone, Washington Sq. $1,000,000.

Buildings (Continued)

Wis., Beaver Dam—High School—School Bd having plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, for 3 story, brick and rein.-con., rein.-con. flooring plain foundation. $200,000. Noted Sept. 29.

Wis., Beloit—Theater—Beloit Amusement Co., c/o H. Adams, Goodwin Blk., having plans prepared by Claud & Starck, archts., Badger Annex, Madison, for 1 story, 90 x 195 ft., brick and concrete, rein.-con. flooring, plain foundation, East Grand Ave. $200,000.

Wis., Milwaukee — Hospital, etc. — Milwaukee Children's Free Hospital, 219 10th St., soon receives bids 5 story, 40 x 150 ft. and 40 x 60 ft. hospital, 4 story, 40 x 125 ft. nurses home and 2 story, 30 x 60 ft. power plant and laundry, rein.-con. and brick, rein.-con. boring, plain foundation, Grand Ave. $400,000. Scott & Mayer, 445 Milwaukee St., archts. Noted Dec. 20.

Wis., Milwaukee—Students Center—Marquette Union of Marquette University, 131 13th St., plans 4 story, brick and concrete rein.-con. flooring, plain foundation, 13th St. $150,000. Architect not selected.

Wis., Oconomowoc—High School—School Bd. having revised plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., LaCrosse, 2 story, brick and concrete, rein.-con. flooring, plain foundation, Summit Ave. $185,000. E. W. Delaney, secy. Noted Aug. 11.

Ia., Missouri Valley—Club—J. Muller Post 337, Amer. Legion, c/o F. Hardy, plans 2 story, 50 x 150 ft., rein.-con., brick and stone. $160,000. Architect not selected.

Minn., Minneapolis—Apartment Hotel—Curtis Hotel Co., c/o T. E. Curtis, pres., 309 South 10th St., plans 6 or 15 story, rein.-con., brick and tile addition on 10th St. between 3rd and 4th Aves. S. Cost between $1,500,000 and $2,000,000.

Kan., Kansas City—Temple—Scottish Rite Bldg. Assn., c/o D. C. Kelley, secy., Masonic Temple Bldg., having plans prepared by Rose & Peterson, archts., Barker Bldg., 2 story, 140 x 150 ft., brick, stone and rein.-con., 8th and Washington Sts. $700,000.

Neb., Omaha—Elks Home—Elks Lodge 3990 plans 8 or 10 story, brick and steel. $1,000,000. O. Neilson, secy. Architect not selected.

Mo., Carthage — Mercantile — Carthage Cash Mercantile Co., c/o J. Bowers, mgr., having plans prepared by J. Prather, archt., Carthage, 2 story, 50 x 160 ft., rein.-con., brick and stone. $150,000.

Mo., St. Joseph—Apartment—F. S. Koogler, Champaign, Ill., having plans prepared 3 story, 102 x 132 ft., brick, stone and rein.-con., here. $160,000. Architects name withheld.

Mo., St. Louis — Apartment — H. M. Jacobs (owner and archt.), Title Guaranty Bldg., preparing plans 3 story, 88 x 125 ft., rein.-con., brick and stone. $150,000.

Mo., St. Louis—Office—W. H. Gruen, archt., 1520 Chestnut St., preparing plans 7 story, 75 x 100 ft., brick, rein.-con. and stone, 15th and Chestnut Sts. $175,000. Owners name withheld.

Mo., St. Louis—Office, etc.—United Ry. Co., c/o A. Perkins, mgr., 39th St. and Park Ave., having plans prepared by A. M. Arhelger, archt., c/o owner, 3 story, brick and steel office and repair shop, Taylor St. and Bway. $160,000.

Mo., Springfield—Hospital—Frisco Ry., c/o E. D. Levy, mgr., Frisco Bldg., St. Louis, having plans prepared by R. C. Stephens, archt., Frisco Bldg., St. Louis, 3 story, brick, stone and rein.-con., here. $200,000.

Tex., Amarillo—Schools—Potter Co. election Oct. 25, $450,000 bonds, schools, high school and ward building. L. D. Marrs, co. judge.

Okla. Enid—Convention Hall—City plans 2 story, rein.-con., brick and stone. $215,000. R. T. Williams, clk. Architect not selected.

Okla., Oklahoma City—Club—Hawk & Parr, archts., Magnolia Bldg., rejected bids opened Oct. 4, 6 story, 125 x 140 ft., rein.-con., brick and stone for Oklahoma Club, c/o J. Shartel. $350,000. Work will be readvertised. Noted Sept. 29.

Okla., Tulsa—Office—W. E. Wright, Wright Bldg., having plans prepared by Rush, Endicott & Rush, archts., 101 Lorton St., for 8 story, 46 x 104 ft., brick, stone, terra cotta and rein.-con., 3rd and Denver Sts. $270,000.

Col., Denver — Bank — Federal Reserve Bank, 10th Dist., R. A. Long Bldg., Kansas City, Mo., plans bank on 18th and Curtis Sts., here. Cost between $500,000 and $1,000,000. R. H. Malone, dir. Architect not selected.

Wash., Seattle—Church—First Christian Church, Bway. and East Olive Sts., opens bids about Dec. 1, 4 story, 60 x 120 ft. terra cotta and brick, concrete foundation. $150,000. R. H. Orr, 1301 Van Nuys Bldg., Los Angeles, Cal., archt. Noted Apr. 14.

Ont., Sandwich—Jail—Having plans prepared by Nichols, Sheppard & Colthurst, archts., Windsor, stone jail. $175,000. Price wanted on all materials.

Ont., Toronto—School—Bd. Educ., 155 College St., had plans prepared by W. W. Pearse, archt., 155 College St., 3 story, 100 x 276 ft., rein.-con. brick and steel, rein.-con. flooring, concrete foundation, Jarvis St. $600,000.

Ont., Windsor — Hotel — E. Doumani, Crawford Hotel, takes bids early in November, 3 story brick and steel addition to hotel on Sandwich St. $150,000. Prices wanted on all materials. Architect not selected.

BIDS DESIRED

N. Y., Brooklyn—Apartment—Hecla Bldg. Co., 451 Crown St., 4 story, brick, steel and stone, concrete pile foundation, St. John's Pl. $185,000. Work will be done by separate contracts under supervision of Springsteen & Goldhammer, archts and engineers, 32 Union Sq., New York.

2140

In September we published a total of 2140 items of construction news. This in spite of the hard times which nobody can deny. In September, 1920, we carried 2100 items—40 less than last month.

N. Y., Schenectady—Schools—Oct. 19, by Bd. Contract & Supply, City Hall Annex, 3 schools, Elm, Front and Oneida Sts. J. Curry, secy.; adv. this issue. Noted July 21.

N. J., Camden—School—Oct. 17, by Bd. Educ., City Hall, 2 story, 106 x 207 ft., granite and terra cotta, rein.-con. flooring, plain foundation, 32nd and Hayes Sts. Cost to exceed $200,000. C. S. Adams, 2036 Spruce St., Phila., archt. Noted May 19.

N. J., Elizabeth—Clubhouse—Nov. 1, by King & Campbell, archts. and engrs., 38 West 40th St., New York, 2 story, brick and stone addition, brick foundation, here, for B. P. O. E., 211 Broad St. $150,000. Noted Sept. 29.

Pa., Harrisburg—High School—Oct. 24, by School Bd., 121-123 Chestnut St., 3 story, 100 x 100 ft. concrete, brick and stone, 6th and Division Sts. $150,000. C. H. Lloyd, Suite 701-A, Telegraph Bldg., archt.

Pa., Phila.—Convent—Oct. 20, by P. A. Monaghan, archt., 1218 Chestnut St., 3 story, 40 x 127 ft. brick, steel and stone, rein.-con. flooring, plain foundation, Price and Sprague Sts., for Roman Catholic Church of Immaculate Conception, Price and Sprague Sts., $200,000.

Pa., Phila.—Hospital—Oct. 20, by H. W. Castor, archt., Stephen Girard Bldg., 5 story, 96 x 123 ft. rein.-con., brick and steel, rein.-con. flooring, plain foundation, on Broad and Ritner Sts., for Methodist Episcopal Hospital, Broad and Ritner Sts. $300,000.

Pa., West Chester—Hospital—Oct. 20, by Day & Klauder, archts., 925 Chestnut St., Phila., 4 story, 43 x 192 ft. with 3 story, 29 x 42 ft., 2 story, 36 x 36 ft., 34 x 38 ft. and 42 x 42 ft. wings, brick, terra cotta and stone, rein.-con. flooring, plain foundation, for Chester Co. Hospital. $500,000.

D. C., Wash. — High School — Oct. 26 (change of date) Dist. Comrs. 509 Dist. Bldg., New Eastern High School, 3-story complete including mechanical equipment. $700,000. A. L. Harris, Dist. Bldg., municipal archt. Noted Sept. 29.

N. C., Asheville—Oct. 17, by Y. M. C. A., 3 story, 110 x 150 ft. $235,000. Jallade, Lindsay & Warren, 129 Lexington Ave., New York, Archt.

O., Bloomville—High School—Nov. 1, by J. P. Webster, clk., Bd. Educ. 2 story, 112 x 115 ft., brick and concrete. $150,000. Glass & Austin, Gas Co. Bldg., Columbus, archts. Noted Nov. 18.

O., Canton—High School—Oct. 17, by Bd. Educ., 2 story, 60 x 125 ft., brick, steel and concrete rein.-con. flooring, plain foundation 14th St. $200,000. Thayer & Johnson, 5716 Euclid Ave., Cleveland, archts.

O., Cleveland—Commercial and Apartment—Oct. 18, by Venice Bldg. Co., c/o F. Riley, 1508 Williamson Bldg., 5 story, 48 x 106 ft., brick, steel and concrete, rein-con. flooring, plain foundation, East 84th St. and Euclid Ave. $200,000. J. F. Steffens, 611 Fidelity Mortgage Bldg., archt.

Mich., Springwells—Bank—Oct. 17, by M. R. Burrowes, archt., 2631 Woodward Ave., Detroit, 2 story, brick, steel and stone, Michigan Ave., for Springwells State Bank. $150,000. A. D. Rosiers, 2631 Woodward Ave., Detroit, engr.

Ill., Centralia—Hospital—Oct. 18, by St Mary's Hospital, 207 North Elm St., and H. J. Gaul, archt., 111 West Washington St., Chicago, 3 story, 40 x 100 ft., rein.-con., brick and stone. $170,000. Noted Aug. 4.

Ill., Evanston—Apartment—Oct. 20, by C. Lovegren, 1215 Cornelia Ave., 3 story, 82 x 125 ft., rein.-con., brick and stone, Dobson St. and Ridge Ave. $150,000. J. A. Nyden, 190 North State St., Chicago, archt. Noted Oct. 6.

Ill., Freeport—Hospital—Oct. 20, by G. F. Schreiber, archt., 105 West Monroe St. Chicago, 4 story, 50 x 120 ft., brick, steel, rein.-con. and stone, for St. Francis Hospital, $180,000. Noted July 7.

Ill., Harrisburg—School—Oct. 25 (change of date), by Bd. Educ., 2 story, 140 x 140 ft., steel, concrete and brick, rein.-con. flooring, concrete foundation. $300,000. G. Davenport, pres. A. L. Barnes, 1329 Birchwood Ave., Chicago, archt. Noted Sept. 22.

Ill., Peoria—School—Nov. 5, by Bd. Educ., c/o G. Mitchell, 2 story, rear addition to manual training school, brick, steel, rein.-con. and hollow tile. $225,000. F. J. Klein, 331 Main St., archt. Noted Apr. 14.

Kan., Kansas City—Lodge and Office—Oct. 18, by J. G. Braecklein, archt., 604 Minnesota St., 7 story, 65 x 90 ft. brick, stone and rein.-con., 905 North 7th St., for B. P. O. Elks No. 400, c/o F. Railsback. $200,000. Noted July 28.

CONTRACTS AWARDED

Mass., Leominister—Hospital—Bd. Trustees Leominister Hospital, 4 story, brick, concrete and steel, plain foundation, North Main St., to Wiley & Foss, Central St., Fitchburg. $150,000. Noted Apr. 21.

Mass., West Springfield (Springfield P. O.) Bank—West Springfield Trust Co., 2 story, 60x80 ft., concrete, brick and steel, rein-con. flooring, plain foundation. Elm St., to E. F. Carlson Co., 244 Main St., Springfield. Noted July 28.

N. Y., Brooklyn—Apartment—Quando Realty Constr. Co., c/o McCarthy & Kelley, archts. and engrs., 16 Court St., 4 story, 105 x 158 ft., brick, steel and stone, concrete pile foundation, East 13th St. and Caton Ave. $400,000. Work will be done by day labor.

N. Y., New York—Apartment—G. L. S. Building Co., c/o Moore & Landseidel, archts. and engrs., 148th St. and 3rd Ave., 6 story, 90 x 100 ft., brick, steel and stone, concrete pile foundation, Grand Ave. and 181st St. $150,000. Work will be done by day labor.

N. Y., New York—Apartment and Store—D. Meehan Corp., 1936 Bway., 5 story, brick, steel and stone, concrete pile foundation, University and Ogden Aves. $185,000. Work will be done by day labor. C. Schaefer, 394 East 150th St., archt. and engr.

N. Y., New York—Apartment—West 190th St. Corp., c/o Moore & Landseidel, archts. and engrs., 148th St. and 3rd Ave., 3 story, brick, steel and stone, concrete pile foundation, 205th St. and Bainbridge Ave. $200,000. Work will be done by day labor.

N. Y., Poughkeepsie—Schools—Bd. Educ., 22 Washington St., 2 story, 60 x 90 ft. addition to P.S. 7, Church St., to Johnson &

Buildings (Continued)

Miller, Yonkers, $78,200; 2 story, 60 x 90 ft. addition to P.S. 9, Delafield St., to W. W. Kingston, 1 Washington St., $58,400; 2 story, 68 x 87 ft. addition to Warring School, Smith St., to B. D. Holden, 35 Market St., $65,974. Noted Sept. 29.

N. J., Newark — Market — Bureau of Markets, brick and stone market, to C. F. Mac Evoy Co., 507 Orange St., $707,814. Noted April 28.

Pa., Drexel Hill—School—Bd. Educ. Garrettford, 2 story, 40 x 120 ft. here, to Penn Constr. & Eng. Co., 3840 Spring Garden St., Phila.

Pa., Phila.—Church—St. Mark's Lutheran Church, Broad and Chelten Aves., 2 story, 70 x 148 ft., rein.-con., brick and steel, rein.-con. flooring, plain foundation, Broad and Chelten Aves., to A. R. Raff, 1635 Thompson St., $250,000. Noted Aug. 4.

Pa., Phila.—Office—Hayman Bros., c/o L. B. Rothchild, archt., 1225 Sansom St., 10 story, 49 x 107 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, 113 South Broad St., to Wark Co., Broad and Walnut Sts., to exceed $1,000,000. Noted July 28.

Ga., Augusta—Y. M. C. A., 4 story, to Northeastern Constr. Co., Charlotte, N. C. $300,000. Noted July 28.

Tenn., Nashville—Office—Methodist Episcopal Church Bd. of Missions, remodeling 3 story addition to Doctors Bldg., Church St., rein.-con., brick and steel, to J. S. Moudy & Co., 43 Chamberlain Bldg., Chattanooga. $250,000. Noted Sept. 15.

O., Cleveland—Armory—Best & Hoefler, archts., Vickers Bldg., 3 story, brick, steel and concrete rein.-con. flooring, plain foundation Bolivar Rd., to S. W. Emerson Co., 1900 Euclid Ave., for Cleveland-Gravs, c/o H. P. Schuppe, 2840 Carnegie Ave. $200,000. Noted Sept. 22.

O., East Cleveland—(Cleveland, P. O.)—Commercial and Apartment—East Cleveland Corner Co., c/o L. Katz, 705 Republic Bldg., Cleveland, 3 story, 110 x 200 ft., brick and concrete, rein-con. flooring, plain foundation, Euclid and Superior Aves., to Cook Constr. Co., c/o owner. $200,000. Noted Sept. 8.

O., Portsmouth—Schools—Bd. Educ. 3 story, 106 x 129 ft. addition to high school, also two 2 story 37 x 65 ft. additions to Lincoln School, brick, stone and concrete, to Danis-Hunt Constr. Co., 907 Schwind, Dayton, $229,000 and $59,000 respectively. Noted Sept. 22.

O., Ravenna—High School—Bd. Educ. 3 story, brick, stone and concrete, to Watts Suhribier Co., 1235 Miami St., Toledo, $380,000. Noted Sept. 22.

Mich., Detroit—Bank and Office—Detroit Savings Bank, State St., rein.-con., brick, steel and stone rein.-con. and wood flooring concrete foundation, Woodward Ave. and Brady St., to N. M. Lerner, 901 Kresge Bldg., $150,000. Noted Sept. 15.

Mich., Detroit — Recreation — Recreation Comn., 540 Elmwood Ave., 2 story, 140 x 140 ft., rein.-con., brick and steel, rein.-con. flooring, plain foundation, Atkinson Park, to A. J. McLean, 302 Holden Bldg., $135,546. Noted Oct. 6.

Mich., L'Anse—Hospital—Bucher Memorial Hospital, c/o I. Firnberg, L'Anse, 3 story, 42 x 110 ft. with two 40 x 60 ft. wings, brick, rein.-con. flooring, plain foundation, to J. J. Michels, Houghton. $150,000.

Mich., Springwell — Municipal — For 2 story, 72 x 96 ft. rein.-con., brick and steel, rein.-con. flooring, concrete foundation, Michigan Ave., to Lennane Bros., 809 Union Trust Bldg., Detroit; $165,000. Noted Aug. 25.

Ill., Wilmette — Temple — Bahai Temple, c/o C. True, 5338 Kenmore Ave., Chicago, 120 x 178 ft., rein-con. and steel, Sheridan Rd. and Linden Ave., here, to McCarthy Bros., 1846 West Washington St., Chicago, $1,500,000. Noted Jan. 20.

Wis., Dousman—Home—Wisconsin Masonic Home Assn., c/o A. E. Matheson, chn. com., 624 St. Laurence Ave., Janesville, 3 story, 100 x 200 ft., brick and concrete, rein-con. flooring, plain foundation, to R. Reisinger & Co., 464 Oakland Ave., Milwaukee. $300,000. Noted Sept. 29.

Wis., Stevens Point—Hotel—Stevens Point Hotel Co., 5 story, rein.-con. and brick, rein.-con. flooring, plain foundation, to Immel Constr. Co., 200 North Main St., Fond du Lac. $300,000. Noted Sept. 1.

Mo., St. Louis—High School—H. P. Hess, archt., 4811 Cote Brilliant St., 3 story, 80 x 178 ft., rein.-con., brick and stone Newstead and Lindell Sts., to J. Grewe Const. Co., Century Bldg., for Rosatti Kain Catholic School, 4368 Lindell St. $300,000. Noted Sept. 22.

Ont. Toronto—Office—F. H. Ross & Co., Ltd., Lumsden Bldg., 8 story, 90 x 165 ft. tile, brick and steel, rein.-con. flooring, concrete foundation, Richmond and Sheppard Sts., to Yolles & Rottenberg, 366 Adelaide St. W. $600,000.

Ont. Toronto—School—Bd. Educ., Riverdale Technical School, 1 and 3 story, 30 room, rein.-con., brick and steel, rein.-con. flooring, concrete foundation, general contract to Witchall & Son, 156 St. Helens Ave., $607,192; plumbing, heating, ventilation etc., to W. G. Edge Co., Ltd., 47 Richmond St. E., $117,000. Noted Sept. 15.

Federal Government Work

PROPOSED WORK

Mass., Weymouth—Dredging—U. S. Engineer, Boston, Mass., opens bids about Nov. 1, dredging in Fore River.

Pa., Pittsburgh — Engines — U. S. Engineer, opens bids about Nov. 1, operating machinery engines for Emsworth Dam, Ohio River.

Va., Norfolk—Dredging—U. S. Engineer opens bids about Nov. 1, dredging in Onancock River, here.

Ark., Ft. Logan H. Roots—Hospital—Treas. Dept., Wash., D. C., plans hospital, complete except mechanical equipment, here. J. A. Wetmore, acting superv. archt.

Ark., Ft. Logan H. Root — Mechanical Equipment—Treas. Dept., Wash., D. C., mechanical equipment for hospital, here. J. A. Wetmore, acting superv. archt.

N.M., Ft. Bayard — Mechanical Equipment—Treas. Dept., Wash., D. C., mechanical equipment for infirmary group of 3 buildings at U. S. Public Health Service Hospital, here. J. A. Wetmore, acting superv. archt.

Ariz., Prescott—Mechanical Equipment—Treas. Dept., Wash., D. C., mechanical equipment for 2 semi-ambulant quarters, 4 double quarters for officers, 1 double quarter for first class personnel, 1 quarter for married attendants, at U. S. Pub. Health Serv. 50, Whipple Barracks, here. J. A. Wetmore, acting superv. archt.

Wash., Walla Walla—Mechanical Equipment—Treas. Dept., Wash., D. C., mechanical equipment for hospital, here. J. A. Wetmore, acting superv. archt.

BIDS DESIRED

W. Va., Charleston—Electric Cable System—Spec. 4537—Oct. 26, Bureau Yards & Docks, Navy Dept., Wash., D. C., electric cable system here.

Ill., Chicago — Fire Protection System — Oct. 17, by Treas. Dept., Wash., D. C., extending fire protection system at U. S. Pub. Health Serv. Hospital 2, Broadview, here. J. A. Wetmore, acting superv. archt.

Ill., Decatur—Alterations to Post Office—Oct. 28, by Treas. Dept., Wash., D. C., altering basement, U. S. Post Office, here. J. A. Wetmore, acting surv. archt., adv. this issue.

N. M. Ft. Bayard—Hospital—Oct. 31, by Treas. Dept., Wash., D. C., infirmary group, 3 buildings, complete except mechanical equipment; and extenscions to heating, power and refrigerating plants, at U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt. Noted Aug. 4.

Ariz., Prescott — Quarters — Nov. 2, by Treas. Dept., Wash., D. C., complete except mechanical equipment, 2 semi-ambulant quarters, 4 double quarters for officers, 1 double quarter for first class personnel, 1 quarter for married attendants, at U. S. Public Health Service Hospital 50, Whipple Barracks, here. J. A. Wetmore, acting superv. archt. Noted Aug. 25.

BIDS RECEIVED

Md., Indian Head — Waterproofing Cooling Pond — Spec. 4428 — Bureau Yards & Docks, Navy Dept., Wash. D. C., draining, grading and waterproofing cooling pond, here, from S. J. Smith & Co., 11 East Lexington St., Baltimore, $11,340 (100 days); A. H. Rogers 616 Colorado Bldg., Wash., D. C., $16,905 (90 days); W. F. Cush, 3d and R Sts., N.E., Wash., D. C., $20,900 (100 days). Noted Sept. 29.

CONTRACTS AWARDED

Md. Annapolis — Boiler Plant Improvements—Spec. 4500—Bureau Yards & Docks, Navy Dept., Wash., D. C., boiler plant improvements at Naval Hospital, here, to H. E. Crook Inc., 28 Light St., Baltimore, $12,875 (90 days). Noted Oct. 6.

Miscellaneous

PROPOSED WORK

Trucks—New Orleans, La—Plans to purchase eight 3½ ton dump steel motor trucks, for use at municipal plant. A. Klorer, city engr.

Stadium—Champaign, Ill.—University of Illinois having plans prepared by Holabird & Roche, archts., 104 South Michigan Ave., Chicago, rein.-con. and steel stadium, here. $2,000,000. A. Brundage, chn.

Transmission Lines—Manchester, Okla.—City voted $27,000 bonds transmission lines from here to Anthony, Kan. W. Blecha, clk. W. B. Rollins, Ry. Exch. Bldg., Kansas City, Mo., engr. Noted Sept. 15.

Electric Light System—Edinburg, Tex.—Attorney Generals Dept., Austin, approved $30,000 bonds electric light system.

BIDS DESIRED

Coal Handling Apparatus, etc.—Thiells, N. Y.—Oct. 27, by M. B. Patterson, pres. Bd. Mgrs. of Letchworth Village, 7 Wall St., New York, coal handling apparatus, equipment, central heating plant, sanitary work and additions to sewage disposal plant, Letchworth Village, here. L. F. Pilcher, Capitol, Albany, state archt.; adv this issue.

Oil Tank Wagons—Phila., Pa.—Oct. 18, by F. H. Caven, dir. pub. wks., 2 fuel oil tank wagons, 600 gal. capacity, with steel wheels, also 4 with wooden wheels. Address, F. C. Dunlap, City Hall.

Grade Separation — Dearborn, Mich. — Oct. 18, by E. N. Hines, 1103 Real Estate Exch., Detroit, chn. Wayne Co. Rd Com. grade separation at intersection of Telegraph Rd. and Michigan Central R.R., concrete slab for superstructure, sodding of side slopes, 1,200 ft. sewers, 14,360 cu.yd. earth excav., 700 cu.yd. rein.-con. for piers and abutments, 40 ton reinforcing steel, 734 cu.yd. concrete for bridge retaining wall, 734 cu.yd. precast slabs and 1,000 sq.yd. sodding. H. A. Shuptrine, 1103 Real Estate Exch., Detroit, engr.

RECEIVED BIDS

Inorganic Dust—New York, N. Y.— H. H. Curran, Pres. Manhattan Boro, Municipal Bldg., furnishing and delivering 1,500 ton inorganic dust, from E. Myer & Co., 25 Church St., $7.43 per ton total cost $11,145; New York Trap Rock Corp. 101 Park Ave., $8.95, $13,425. Noted Sept. 20.

Cranes, etc.—Stapleton, S. I., N. Y.—M. Hulbert, comr. Docks, Pier "A" foot of Battery Pl., North River, New York, cranes at Piers 12 and 13, here, from Heyl & Patterson, Inc., 90 West St., New York, proposal (a), $370,882, (b) $356,126, (c) $341,110, (d) $325,310, (e) $301,308, Wellman-Sieber-Morgan Co., 700 Central Ave., Cleveland, O., (a) $396 435, (b) $384,567, (c) $372,699, (d) $360,831, (e) $399,873, Dravo Contg. Co., Diamond Bank Bldg., Pittsburgh, (a) $426,750, (b) $409,860, (c) $392,700, (d) $374,920, (e) $350,710; elevators, from Gurney Elevator Co., 300 8th Ave., New York, $109,862, Warner Elevator Mfg. Co., 113 Warren St., New York $147,000, Otis Elevator Co., 11th Ave. and 26th St., New York, $158,100; electric power transmission, from Watson Flagg Eng. Co., 120 Liberty St., New York, $16,800, Croker Nat'l. Fire Prevention Eng. Co., 22 West 30th St. New York, $18,979, J. Livingston & Co., 70 East 45th St., New York, $19,420; steam heating plants, from Shevlin Eng. Co., 110 West 34th St., New York, $10,954, E. F. Barrett, $12,280, Callahan Kingsley Co., 343 West 52nd St., New York, $12,373. Noted Sept. 8.

CONTRACTS AWARDED

Garbage Disposal—Providence, R. I.—Bd. Contract and Supply, (garbage disposal for period 5 years), to J. J. Nugent, 1190 Eddy St., $400,000. Noted Aug. 11.

Core Stone, etc.—Coney Island (Brooklyn P. O.), N. Y.—E. Riegelmann, pres. Brooklyn Boro, Boro Hall, improvement and protection of beach, here, 30,000 ton core stone for jetties, etc., to Phoenix Constr. Co., 41 Park Row, New York, $1,898,924. Principal Unit prices may be obtained by writing Engineering News-Record. Noted Oct. 6.

Crane—New York, N. Y.—C. L. Cadle, supt. Pub. Wks., Capitol, Albany, electric crane, Mott Haven, here, Terminal Contr. 119, to Lambert Hoisting Engine Co., 117 Poinier St., Newark, N. J., $11,980. Noted Sept. 1.

Road Roller — New Orleans, La. — For one 3 wheel road rollers, to Buffalo Springfield Motor Co., Kenton and Oaks Sts., Springfield, O., $4,080. Noted Sept. 15.

Transmission Line—Bluff City, Kan.—City transmission line from here to Anthony, to E. A. Brown Electrical Co., 715 Minnesota St., Kansas City, $25,000. Noted Sept. 8.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 24	Salem, N. J.	Sept. 29
Oct. 24	Milwaukee, Wis.	Sept. 29
Oct. 26	Ashland, Ky.	Oct. 20
Oct. 27	Pawhuska, Okla.	Oct. 13
Oct. 28	Ypsilanti, Mich.	Oct. 20
Oct. 31	Dallas, Tex.	Oct. 13
Nov. 1	River Rouge, Mich.	Oct. 20
Nov. 7	Idlewood (Warrensville P. O.), O.	Oct. 20
Nov. 10	New York Adv. Oct. 6 and 20.	Oct. 6
Nov. 10	New Braunfels, Tex.	Oct. 13

SEWERS

Bids Close		See Eng. News-Record
Oct. 24	Milwaukee, Wis.	Oct. 20
Oct. 25	North Arlington, N. J.	Oct. 6
Oct. 26	New York, N. Y.	Oct. 20
Oct. 26	Long Island City, N. Y.	Oct. 20
Oct. 27	East San Diego, Cal. Adv. Oct. 6 and 20.	Oct. 6
Nov. 2	Monroe, La. Adv. Oct. 20.	Oct. 20
Nov. 8	London, Ont.	Oct. 13
Nov. 9	Reading, Pa.	Oct. 20
Nov. 15	Rutherford, N. J.	Oct. 20
Nov. 22	Wallington, N. J.	Oct. 20

BRIDGES

Bids Close		See Eng. News-Record
Oct. 24	New Gretna, N. J. Adv. Oct. 13 and 20.	Oct. 13
Oct. 25	Salina, Kan.	Oct. 6
Oct. 26	Mt. Ayr, Ia.	Oct. 20
Oct. 27	Grand Rapids, Mich. Adv. Oct. 13 and 20.	Oct. 13
Oct. 27	North Carolina	Oct. 20
Oct. 27	Las Animas, Col.	Oct. 20
Oct. 27	Neponset (Boston P. O.), Mass.	Oct. 20
Oct. 28	McRae, Ga.	Oct. 20
Nov. 15	Oklahoma City, Okla. Adv. Oct. 6 and 20.	Oct. 6
Nov. 18	Dayton, O.	Oct. 20

RAILWAYS

Bids Close		See Eng. News-Record
Nov. 9	New York	Oct. 20

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Oct. 21	Holton, Kan.	Oct. 13
Oct. 25	Austin, Minn.	Oct. 20
Oct. 25	Warren, Minn.	Oct. 13
Oct. 27	Gorham, Ill.	Oct. 13
Oct. 27	Valley, Ill. Adv. Oct. 6 and 20.	Oct. 13
Oct. 27	Tompkinsville, N. Y.	Oct. 20
Oct. 28	Cambridge, Minn.	Oct. 20
Nov. 5	Charleston, Mo.	Oct. 20
Dec. 1	Riverton, Wyo.	Oct. 20
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Bids Close		See Eng. News-Record
Oct. 24	Louisiana	Oct. 13
Oct. 24	Chicago, Ill.	Oct. 20
Oct. 24	St. George, S. I., N. Y.	Oct. 20
Oct. 25	Ohio	Oct. 20
Oct. 25	Massachusetts	Oct. 13
Oct. 25	Allenhurst, N. J. Adv. Oct. 20.	Oct. 20
Oct. 25	Cresco, Ia.	Oct. 20
Oct. 26	Alabama	Oct. 6
Oct. 26	Brooklyn, N. Y.	Oct. 20
Oct. 26	Mt. Ayr, Ia.	Oct. 20
Oct. 27	Brooklyn, N. Y.	Oct. 20
Oct. 28	Duluth, Minn.	Oct. 6
Oct. 31	Palestine, Tex.	Oct. 20
Oct. 31	California	Oct. 20
Oct. 31	Louisiana	Oct. 20
Oct. 31	New Jersey Adv. Oct. 13 and 20.	Oct. 20
Nov. 1	Lewisburg, W. Va.	Oct. 13
Nov. 1	La Grange, Tex.	Oct. 20
Nov. 2	New Mexico	Oct. 20

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Oct. 25	Phila., Pa.	Oct 13
Oct. 25	St. Louis, Mo.	Oct. 20
Oct. 26	Salisbury, Mo.	Oct. 20
Oct. 27	Boston, Mass.	Oct. 20

BUILDINGS

Bids Close		See Eng. News-Record
Oct. 24	Cleveland, O.	Sept. 8
Oct. 24	Cincinnati, O.	Oct. 6
Oct. 24	Columbus, O.	Oct. 6
Oct. 24	Harrisburg, Pa.	Oct. 13
Oct. 24	Elyria, O.	Oct. 20
Oct. 24	New York, N. Y.	Oct. 20
Oct. 25	Harrisburg, Ill.	Oct 13
Oct. 25	Mexico, Mo.	Oct. 20
Oct. 25	Martinsville, Ill.	Oct. 20
Oct. 25	Cisco, Tex.	Oct. 20
Oct. 25	Kansas City, Mo.	Oct. 20
Oct. 25	Raymond, Ill.	Oct. 20
Oct. 26	Wash., D. C.	Oct. 6
Oct. 26	Wash., D. C.	Oct. 13
Oct. 26	Palmyra, N. J.	Oct. 20
Oct. 27	Onondaga Valley, N. Y.	Oct. 20
Nov. 1	Santa Ana, Cal.	Oct. 6
Nov. 1	Elizabeth, N. J.	Oct. 13
Nov. 1	Bloomville, O.	Oct. 13
Nov. 1	Teaneck (Englewood P. O.) N. J. Adv. Oct. 20.	Oct. 20
Nov. 1	Rockton, Ill.	Oct. 20
Nov. 5	Peoria, Ill.	Oct. 13
Nov. 5	Peoria, Ill.	Oct. 20
Nov. 7	Bridgman, Mich.	Oct. 20
Nov. 8	Osawatomie, Kan.	Oct. 20
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Oct. 25	Lumber—Memphis, Tenn.	Oct. 20
Oct. 26	Electric Cable System — Charleston, W. Va.	Oct. 13
Oct. 26	Rebuilding Boiler Setting—Bellevue, D. C.	Oct. 20
Oct. 26	Engine House—Cape Hatteras, N. C.	Oct. 20
Oct. 27	Millwork and Glazing—Prescott, Ariz.	Oct. 20
Oct. 28	Alterations to Post Office — Decatur, Ill.	Oct. 13
Oct. 31	Hospital — Ft. Bayard, N. M.	Oct. 13
Nov. 1	Piping, etc.—Chicago, Ill.	Oct. 20
Nov. 2	Quarters—Prescott, Ariz.	Oct. 13
Nov. 2	Remodeling Barracks—Mare Island, Cal.	Oct. 6
Nov. 3	Mess Hall — Tahlequah, Okla.	Oct. 20
Nov. 3	Mechanical Equipment — Ft. Bayard, N. M.	Oct. 20
Nov. 8	Tower and Tank—Cape Fear, N. C.	Oct. 20
Nov. 15	Monument — Plattsburg, N. Y. Adv. Oct. 20.	Oct. 20
Nov. 15	Vessel—St. Louis, Mo. Adv. Oct. 20.	Oct. 20
Nov. 22	Monument—Vergennes, Vt. Adv. Oct. 20.	Oct. 20
Dec. 7	Storehouse—Pearl Harbor, H. T. Adv. Oct. 13 and 20.	Oct. 6

MISCELLANEOUS

Bids Close		See Eng. News-Record
Oct. 22	Cut Stone—Wash., D. C. Adv. Sept. 29 to Oct. 20.	Sept. 29
Oct. 24	Broken Stone, etc.—New York N. Y.	Oct. 20
Oct. 25	Asphalt Cement, etc.—Nashville, Tenn.	Oct. 20
Oct. 25	Trestle and Bins—Washington, D. C.	Oct. 6
Oct. 25	Pipe Line—Okemah, Okla.	Oct. 20
Oct. 25	Wharf and Transit Shed — Houston, Tex.	Oct. 20
Oct. 26	North Bergen (Weehawken P. O.), N. J.	Oct. 20
Oct. 26	Jetty — New Westminster, B. C.	Sept. 29
Oct. 27	Coal Handling Apparatus, etc., Thiells, N. Y. Adv. Oct. 13 and 20.	Oct. 13
Nov. 11	Coal and Ash Handling Machinery and Equipment — Milwaukee, Wis. Adv. Oct. 20.	Oct. 20
Nov. 30	Stadium—Chicago, Ill. Adv. Oct. 20.	Oct. 20

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Syracuse—Common Council authorized $560,000 bond issue for 6 mi. (ultimately 29 mi.) 90 in. conduit to Skaneateles Lakes. Bids will probably be opened some time next month. H. A. Allen, city engr.

Ala., Troy—To vote Oct. 24 on $25,000 bonds waterworks. M. D. Pace, city engr.

O., Dayton — Comrs. Montgomery Co. plans c.i. mains and laterals for Fairview Water Supply System 1. $234,000. K. B Allen, 606 U. B. Bldg., engr.

Wis., Waupaca—Making plans for waterworks and open wells for main source supply. $20,000. W. G. Kirchoffer, Vroman Blk., Madison, engr.

Kan., Sabetha—Making plans improving waterworks and laying new mains. $60,000. H. Darby, Sabetha, engr.

Tex., Edinburg—Soon take bids waterworks and electric light plant. H. E. Wilcox, city engr. Noted Oct. 13.

Tex., Wortham—To vote on $60,000 bonds waterworks. Address W. McGinn, secy. Chamber Commerce.

Okla., Marlow—Having plans prepared 4 mi. mains, 250,000 gal. reservoir, pumps and wells. $60,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Ont., Uxbridge—Plans waterworks. $60,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs.

BIDS DESIRED

Ky. Ashland—Oct. 26, by Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, 3,000,000 gal. filtration plant 500,000 gal. rein.-con. reservoir and timber room over same, laying 1 mi. 12 in. and 1½ mi. 6 and 8 in. ci. i. pipe here. $160,000. Former bids rejected. Noted Sept. 1.

O., Idlewood (Warrensville P. O.)—Nov. 7 for 6,320 ft. 4-12 in. c.i. mains. $43,553. F. A. Pease Eng. Co., Marshall Bldg, Cleveland, engrs.

Mich., River Rouge—Nov. 1, by G. Jerome, engr., 1331 Majestic Bldg., Detroit, 339 ft. brick, concrete or concrete segment block tunnel, 13 ft. in diam., two 71 ft. shafts, and water mains under River Rouge, 368,244 lb. 30 in. flanged pipe, 61,712 lb. 30 in. specials, 62,000 lb. reinforcing, 1,152 cu.yd. rein.-con., etc., $100,000.

Mich., Ypsilanti—Oct. 28, by City Clerk, 29 x 37 ft. brick and steel pumphouse, one 750 gal., one 1,000 gal. and one 1,500 gal. per minute pumps. Hoad & Decker, Ann Arbor, engrs.

Tex., Laredo—F. W. Malley, secy. Chamber Commerce, receiving bids, waterworks machinery, engines, pumping plants, pipelines, etc., for population of 22,710. C. Frees, city engr.

Que., Montreal—Chairman Administrative Comn. receiving bids centrifugal pump, open vertical impeller type.

N. Y., S. I., St. George—N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, hauling and laying mains in Arrietta St., and along bulkhead wall from Arrietta St. to Clifton, from G. Troiano, 246 Bowery, New York, $16,080; J. Burns, 103 East 125th St., New York, $16,710; Daley Bros. & Co., $18,130. Noted Oct. 6.

Waterworks (Continued)

Minn., St. Paul—For 139 ton c.i. water pipe castings, c.i. gate valves and service connections for water dept., from Great Lakes Eng. Wks., River Rouge, Mich., $103 per ton net; Amer. Cast Iron Pipe Co., 2700 North 24th St., Birmingham, Ala., $16,530; St. Paul Fdry. Co., Como Ave. and Mackubin St., $16,592. Noted Sept. 29.

Wyo., Greybull—Elevated tank, 200,000 gal. capacity, 14,980 ft. 4 in., 4,420 ft. 6 in. 3,000 ft. 8 in., 5,630 ft. 2 in. mains, etc., from E. Lindstrom, Greybull, $69,358; E. Landers, Greybull, $71,100; Security Bridge Co., 502 North 32d St., Billings, Mont., $71,480. Noted Sept. 22.

Cal., Fullerton—Furnishing pipe for waterworks from San Francisco Steel Products Co., Balboa Bldg., San Francisco, $108,521, U. S. Cast Iron Pipe Co., Wright & Callender Bldg., Los Angeles, $115,285, Foundation Co., 423 Higgins Bldg., Los Angeles, $115,915; laying pipe from M. & F. Pipe Line Contg. Co., 534 Douglas Bldg., Los Angeles, $38,726, W. E. Hall, Los Angeles, $41,420, R. T. Shea & Co., Riverside, $41,651.

CONTRACTS AWARDED

N. Y., Buffalo—A. W. Kreinheder, comr. Pub. Wks., Municipal Bldg., 3 high pressure steam driven centrifugal pumps, Col. Francis Ward Pumping Station, to A. J. Abels Co., Inc., Iroquois Bldg., $20,870. Noted Aug. 18.

W. Va., Elkins—Pumping and filtration plant to Concrete Steel Bridge Co., Clarksburg, $57,135; filter and piping equipment, to New York Continental Jewell Co., Nutley, N. J., $18,100; pumps, motors, electrical equipment, De Laval pumps to Dravo-Doyal Co., Diamond Bank Bldg., Pittsburgh, Pa., $9,471; additions to reservoir, to F. Hammer & Co., Elkins, $4,965; laying mains to Pittsburgh-Des Moines Steel Co., Curry Bldg., Pittsburgh, Pa., $6,418; c.i. pipe and specials to United States Cast Iron Pipe Co., Oliver Bldg., Pittsburgh, Pa., $6,739; hydrants to Ludlow Valve Co., 1st Natl. Bank Bldg., Pittsburgh, Pa., valves to Rennsalear Valve Co., Oliver Bldg., Pittsburgh, Pa., $1,087. Noted Sept. 15.

Ill., Decatur—For 4-6 in. c.i. mains, to Manie & Dunbar, St. Louis, Mo., $26,000. Noted Oct. 6.

Ia., Dysart—For 9,934 ft. 4 in. c.i. mains, 2,850 castings, etc. to Sieg Constr. Co., Waterloo, $20,000. Noted Sept. 8.

Neb., Norfolk—For 4 and 6 in. c.i. pipe, 22 hydrants, 11 valves and 6,057 fittings, to Norfolk Bridge & Constr. Co., Norfolk, $25,338. Noted Sept. 29.

Sewers

PROPOSED WORK

N. J., Totowa (Paterson P. O.)—Making plans for sewerage system and disposal plant. H. J. Harder, 129 Market St., Paterson, engr.

N. C., Rocky Mount — See "Streets and Roads."

Mich., Oakwood—Voted $70,000 bonds extending sewerage system. H. L. Russell, 505 Moffat Bldg., Detroit, engr.

Mich., Springwells—Plans disposal plant and sewers in Schaeffer Rd., Freud, Southern, Mulkey and Thayer Aves., brick, concrete or segment block, $1,200,000. C. W. Hubbell, 2348 Penobscot Bldg., Detroit, engr.

Ill., Champaign—Plans sewerage system. $200,000. F. C. Lohman, city engr.

Ill., Riverdale (Chicago P. O.)—Making plans sewerage system. $234,000. A. W. Hersey, Harvey, engr.

Wis., Bloomington—Making plans for 3½ mi. 6-8-12 in. vitr. sanitary and storm sewers and septic tank, etc. $35,000. W. G. Kirchoffer, Vroman Blk., Madison, engr. Noted July 14.

Wis., Cambria—Making surveys for sanitary and storm sewerage system. $25,000. W. G. Kirchoffer, Vroman Blk., Madison, engr. Noted Sept. 8.

Mo., Gallatin—Making surveys new sewerage system. C. E. Jacoby, Shukert Bldg., Kansas City, engr.

Tex., Jacksboro—Voted $65,000 bonds for sewerage system and $5,000 waterworks extensions. Machinery will be needed. Address Mayor.

Okla., Pauls Valley—Having plans prepared, 10-14 in. glazed tile storm sewers. $45,000. J. Bottoms, clk. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs. Noted Sept. 22.

Okla., Welch—Had preliminary plans prepared disposal plant and 5 mi. sewers. $50,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Col., Boulder—City Council opens bids about Oct. 29, 5 mi. 12-42 in. storm sewers, concrete pipe will be used above 24 in. $150,000. J. Randolph, city engr.

Cal., Los Angeles—Bd. Pub. Wks. opens bids in about 3 months, 5.17 mi. sewers in Madison Ave. from Temple St. to outlet south of Pico St. $2,500,000. J. T. Griffin, City Hall Annex, engr.

Ont., Ottawa—Plans sanitary sewer in Emmett St., $18,000, storm sewer in Harmer St., $50,000, 2½ mi. vitr. tile, 8 in. up. A. F. Macallum, city engr.

BIDS DESIRED

N. Y., Long Island City—Oct. 26, by M. E. Connolly, pres. Queens Boro, sewer in 13th Ave. from Jackson to Graham Aves., 1st Ward, Waldron St. (Lawn Ave.) from 51st St. to Alstyne Ave.; Van Dorn St. ((Hillside Ave.) from 51st to Martense Sts. (Shipoler Ave.); Orentes St. (Fairview Ave.) from Waldron to Van Doren Sts.; Martense St. from Waldron St. to Boyle Pl.; Lewis Ave. (Newins St.) from Waldron to 51st Sts.; Strong (Floyd) St. from Waldron St. to Corona Ave.; Radcliffe (Moore) St. from Waldron St. to Corona Ave., 2nd Ward.

N. Y., New York—Oct. 26, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., sewer in La Salle Ave. from Eastern Blvd. to Puritan Ave. and Crosby Ave. between adjoining sections of La Salle Ave. Former bids rejected. Noted Oct. 13.

N. J., Rutherford—Nov. 15, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, Sect. 25 Rutherford-Union Branch Intercepting Sewer, Lyndhurst Twp., here, 1,686 lin.ft. earth excav. and refilling, in trench, for 24 in. concrete sewer, 3,323 lin. ft. earth excav. and refilling, in trench, for 18 in. vitr. pipe sewer with concrete reinforcement, 750 cu.yd. concrete masonry, 6,000 lb. steel, etc. J. R. Van Duyne, ch. engr.

N. J., Wallington—Nov. 22, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, southerly portion Sect. 19, Garfield-Wallington-Passaic Branch Intercepting Sewer, here, alternate bids (1) tunnel method, 2,065 lin.ft. excav. in earth, rock, or earth and rock together, in compressed air tunnel, for 54 in. circular masonry sewer, 1,500 cu.yd. concrete masonry, etc.; (2) open trench method, 2,065 lin.ft. earth excav. and refilling in trench for 54 in. circular concrete sewer, 1,800 cu.yd. concrete masonry, etc. J. R. Van Duyne, ch. engr.

Pa., Reading—Nov. 9, 6 mi. pipe sewers and 3 mi. 5 in. connections. E. B. Ulrich, city engr.

La., Monroe — Nov. 2, (a) sanitary sewers, (b) storm sewers, (c) castings, (d) concrete pipe, (e) pumping station, R. S. Reynolds, city engr.; adv. this issue.

Mich., Ferndale—Oct. 24, by G. Jerome, engr., 1331 Majestic Bldg., 725 ton 6 in. and 125 ton 8 in. Class B, c.i. pipe; six 8 in. and eight 6 in. gates, 32 fire hydrants, Detroit Water Works type; six 6 in. gates, Detroit Fire Dept. type; laying 600 ton 6 in. and 100 ton 8 in. c.i. pipe. Noted Oct. 6.

Wis., Milwaukee—Oct. 24, by Dept. Pub. Wks., 1,435 lin.ft. 8-10 in. c.i. pipe, 10,091 ft. 8-10 in. sewer pipe, 44 manholes, etc., in various streets. Cost between $25,000 and $30,000. P. Braman, deputy comr.

BIDS RECEIVED

N. Y., S. I., St. George—C. D. Van Name, pres. Richmond Boro, temporary sanitary sewers in Clove Ave. from Staten Island Ry. to point about 60 ft. north of Fingerboard Rd., etc., from Gross Contg. Co., 233 Bway., New York, $40,785; J. Johnson Sons, $44,987; M. J. Simon, $48,624. Noted Oct. 13.

O., Cleveland—For 4,740 ft. 8-24 in. vitr. sewers in (1) Waterson Ave. from East 123d to East 121st Sts., (2) Dodge Court, (3) East 111th St., (4) Lardet Ave., from W. McDowell & Son, 10319 Miles Ave., (1) $17,435; Gallagher & Burke Constr. Co., 1339 Irene Ave., (1) $19,148; C. Hadded, West 104th St., (2) $2,082, (3) $5,211, (4) $4,883; Yahya Bros., 3539 Independence Rd., (2) $2,106, (4) $4,716; B. J. O'Connor, Union Ave., (3) $8,121.

O., Shaker Heights—For 5,700 ft. 8-15 in. vitr. sewers in Storer and Helen Aves., from Iafornaro Co., 2218 Murray Hill Rd., Cleveland, $26,015. Noted Sept. 22.

Wis., Milwaukee—Sewerage Comn., concrete foundation for 68 x 166 ft. boiler house, Jones Island, from G. E. Kahn, 114 Grand Ave., $15,900; R. G. Gumz, 831 13th Ave., $16,785; Dahlman Constr. Co., 456 Bway., $18,910. Noted Oct. 6.

CONTRACTS AWARDED

Ill., East St. Louis — Sewerage system in McKinley Pl., 6 and 8 in. vitr. clay pipe, to H. H. Hall & Co., East St. Louis, $26,475. Noted Sept. 29.

Wis., Port Washington—Lay 1.9 mi. 6 10 in. sewers in Main St. and install disposal plant, by day labor. $25,000. Septic tank to J. Ubbink & Son, Port Washington. Noted Sept. 22.

Wis., Stevens Point—Building vitr. pipe sewers in 14 streets, to J. M. Donohue, College Ave., $27,044.

Kan., Lindsborg—Laying 8 in. glazed tile sewer pipe, to Amerman & Snyder, Wichita. $26,960. Noted Oct. 13.

S. D., Canton—Storm sewerage systen. to Kruse Constr. Co., Spencer, Ia. $25,00 Noted Sept. 1.

Utah, Logan—For 49,300 ft. 2-21 in. vitr. sewers, to F. A. Dahle, 144 East 3rd St., N. $183,195.

Bridges

PROPOSED WORK

Pa., Lewistown—Nov. 8 to vote on $25,000 bonds for West Main St. Bridge, concrete. F. H. Shaw, Breneman Bldg., Harrisburg, engr.

North Carolina State Hy. Dept., Raleigh, plans 864 ft. steel bridge over Haw River, 18 ft., State Project 664, Chatham Co. $60,000. C. M. Upham, state highway engr.

O., Piqua—Miami Co. (Troy) plans steel truss highway bridge, two 150 ft. spans, 24 ft., over Miami River, on Ash St. $125,000. W. S. Kinder, Troy, co. engr.

O., Shadesville — Comrs. Franklin Co (Columbus) having estimates made and probably take bids in November, for 890 ft. concrete bridge, 9 arches, 24 ft. roadway, over Sciota River, here. C. C. Lattimer, Columbus, co. engr. Noted June 30.

Minn., Baudette—State Hy Comn., St. Paul, having plans prepared 500 ft. steel and concrete Bridge, 20 ft., over Baudette River on Trunk Highway 11, here. $90,000.

Wash, Newport—P. Young, et. al., Priest River, Idaho, having plans prepared and will take bids after first of year for 1100 ft. steel toll bridge over Pend O'Reillle River, here, 5 or 6 steel spans on concrete piers, frame approaches. $250,000. M. M. Caldwell of Union Bridge Co., Central Bldg., Seattle, engr.

BIDS DESIRED

Mass, Neponset (Boston, P. O.)—Oct. 27 by State Metropolitan Dist. Comn., Boston, 794 ft. highway bridge with bascule draw span, steel girder spans, 72 ft., over Neponset River. $450,000. J. R. Rablin, 18 Tremont St., engr.

North Carolina—Oct. 27, by State Hy. Comn., Raleigh, bridges and culverts on State Project 599, Green Co., 750 cu.yd. concrete, 71,000 lb. reinforcing, 600 ft. untreated timber piles, etc. $26,000. C. M. Upham, state highway engr.

Ga., McRae—Oct. 28, by Comrs. of Roads & Revenues, Telfair Co., 2 rein.-con. bridges, 7 rein.-con. culverts, near here, Route 27, Georgia Federal Aid Project 149, State Aid Project S-12-5. E. N. Parker, Dublin, engr.

O., Dayton—Nov. 18, Comrs. Montgomery Co. steel superstructure for two 150 ft. span truss highway bridge, 20 ft., known as Shepard Bridge, over Miami River, Miami Twp. $125,000. P. S. Bookwalter, co. surv.

Ia., Mt. Ayr—Oct. 26, by Auditor Ringgold Co., 37 box culverts and extensions, one 120 ft. and one 100 ft. through trusses, one 80 ft. pony truss. H. H. Howie, engr.

Minn., Kellogg—Oct. 26, by G. J. Ginther, aud. Wabasha Co., Bridge 3618, 600 ft. long, 20 ft., steel spans, concrete flooring, rein.-con. foundation, over Zumbro River, near here. $60,000. State Highway Dept., St. Paul, engrs.

Col., Las Animas—Oct. 27, by State Highway Dept., Denver, 4 span steel bridge over Arkansas River, near here, on State

Bridges (Continued)

Rd. 6, Federal Aid 169, Bent Co. $120,000. L. D. Blauvelt, State Museum Bldg., Denver, engr. Noted Aug. 4.

RECEIVED BIDS

N. Y., New York—G. A. Whalen, comr. Plant & Structures, Municipal Bldg., vehicular roadway on easterly upper deck of Manhattan Bridge, from Vulcan Rail & Constr. Co., Grand St., Brooklyn, $259,600; McClintock-Marshall Co., 50 Church St., $289,000; Associated Contractors, Inc., $289,680. Noted Oct. 6.

Ohio—Dept. Hys. and Pub. Wks., Columbus, opened bids Oct. 14, bridges in following counties:

Cuyahoga Co., Sect. "J" Twinsburg-Elyria Rd., rein-con. bridge, over Chippewa Creek from Gedney, Cleveland, $24,463; Nelson & Kelly, West Park, $25,045; Swingle & Robinson, Columbus, $25,532.

Geauga Co., Sects. "v-a" and "W-1" Chagrin Falls-Greensville Rd., concrete substructure and steel superstructure, Harbaugh Constr. Co., 26 Cherry St., Akron, $12,228; Newhall Co., Cleveland, $13,579; Roberts, Youngstown, $13,627.

Seneca Co., Sect. "K" Tiffin-Republic Rd., concrete bridge, L. W. Dean, $2,730; W. A. Yeagle, Clyde, $2,796; H. A. McDonald, Norwalk, $2,378.

Wayne Co., Sect. "H" Columbus-Wooster Rd., steel bridge, Lodi Concrete Works, Lodi, $10,957; Perkins Steel Co., Wooster, $11,342; H. O. Putnam, Barberton, $11,523.

Williams Co., Sect. "C" Bryan-Edgerton Rd., new floor and repairing bridge, H. A. McDonald, Norwalk, $1,496; Charles Fox Brookville, $1,593; Zeller & Drum, Swanton, $1,695. Noted Sept. 29.

Florida—State Rd. Dept., Tallahassee, concrete culverts and bridges on (1) State Rd. 3, from De Leon Springs to Putnam Co. line, Volusia Co., (2) State Rd. 3, from Sisco to Volusia Co. line, Project 18, Putnam Co., from Luten Bridge Co., West Market St., York, Pa., (1) $26,219; Hyde & Baxter, 711-13 13th St. N. W., Wash., D. C., (1) $31,349, (2) $25,252; Austin Bros., 156 Greenwood Ave., Atlanta, Ga., (1) $36,354, (2) $26,508; Florida Eng. & Constr. Co., Oviedo, (2) $19,789. Noted Sept. 29.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, opened bids Oct. 4 for following bridges: (1) 2 concrete, Route 1, Sect. 7-B, Edwards Co., (2) 4 concrete, substructure for 1 steel, Route 1, Sect. 8-B, Edwards-Wabash Co., (3) 1 superstructure for steel, Route 1, Sect. 8-C, Edwards-Wabash Co., (4) 4 concrete and 1 steel, Route 1, Combination 31, Edwards-Wabash Co., (5) 2 concrete, Route 1, Sect. 10-B, Wabash Co., (6) 6 concrete and 1 substructure for steel span, Route 1, Combination 32, Edwards-Wabash Co., (7) 6 concrete and 1 steel, Route 1, Combination 33, Edwards-Wabash Co., (8) 3 concrete, Route 1, Sect. 18-B, Crawford Co., (9) 5 concrete, Route 1, Sect. 19-B, Crawford Co., (10) 8 concrete, Route 1, Combination 34, Crawford Co., (11) 1 concrete, Route 2, Sect. 1-B, Jackson Co., (12) 3 concrete, Route 2, Sect. 4-B, Jackson-Perry Co., (13) 4 concrete, Route 2, Combination 35, Jackson-Perry Co., (14) 1 concrete, Route 2, Sect. 6-B, Perry Co., (15) 1 concrete, Route 2, Sect. 7-B, Perry Co., (16) 2 concrete, Route 2, Combination 36, Perry Co., (17) 6 concrete, Route 2, Combination 37, Perry Co., (18) 1 concrete, Route 8, Sect. 6-B, Henderson Co., (19) substructure for steel span, Route 8, Sect. 11-B, Peoria Co., (20) superstructure for steel, Route 8, Sect. 11-C, Peoria Co., (21) 2 concrete, Route 1, Sect. 4-B, White Co., (22) 3 concrete, Route 1, Sect. 5-B, White Co., (23) 5 concrete, Route 1, Combination 30, White Co., (24) 5 concrete and substructure for steel span, Route 9, Sect. 4-B, Woodford Co., (25) 1 steel superstructure, Route 9, Sect. 4-C, Woodford Co., (26) 1 steel, Route 9, Combination 41, Woodford Co., (27) 1 concrete, Route 10, Sect. 11-B, Macon Co., (28) 5 concrete, Route 15, Sect. 5-B, Washington Co., (29) 2 concrete, Route 15, Sect. 8-B, Washington Co., (30) 4 concrete, Route 15, Sect. 9-B, Washington Co., (31) 4 concrete, Route 15, Sect. 10-B, Washington Co., (32) 15 concrete, Route 15, Combination 38, Washington Co., (33) 21 concrete, Route 15, Combination 39, Washington Co., (34) 3 concrete, Route 15, Sect. 22-B, Wayne Co., (35) 1 concrete and substructure for steel span, Route 15, Sect. 22-C, Wayne Co., (36) 1 superstructure for steel, Route 15, Sect. 22-D, Wayne Co., (37) 1 steel, Route 15, Combination 42, Wayne Co., (38) 3 concrete, Route 15, Sect. 22-E, Wayne Co., (39) 1 concrete and substructure for steel span, Route 15, Sect. 22-F, Wayne Co., (40) 1 steel superstructure, Route 15, Sect. 22-G, Wayne Co., (41) 1 steel, Route 15, Combination 43, Wayne Co., (42) 2 steel superstructures, Route 15, Combination 44, Wayne Co., (43) 8 concrete and 2 steel, Route 15, Combination 45, Wayne Co., (44) 2 concrete, Route 18, Sect. 10-B, Du Page Co., (45) 4 concrete, Route 37, Sect. 2-B, Jefferson Co., from

Buis & Olsen, St. Joseph, Mo., (1) $9,368 (2) $32,734 (4) $48,218 (8) $16,306 (9) $20,699 (10) $36,365 (21) $13,104 (22) $14,551 (23) $27,102 (34) $21,179 (37) $43,569 (38) $19,443 (41) $104,764 (42) $33,657 (43) $188,125. M. & P. Contg. Co., Rockport, (1) 10,137 (2) $33,591 (5) $7,796. W. H. Shons, 109 Spring St., Freeport, (1) $10,346 (2) $35,180 (4) $44,900 (5) $7,892 (9) $20,696 (11) $5,385 (12) $7,989 (14) $1,620 (15) $1,820 (21) $12,407 (27) $3,340 (28) $10,519 (29) $6,207 (31) $6,991 (39) $80,231 (41) $99,900 (43) $179,000 (44) $11,642. Rochester Bridge Co., Rochester, Ind., (3) $9,792 (20) $10,970 (40) $21,522. Perkins Structural Steel Co., Perkins, Mich., (3) $10,102 (20) $11,269 (25) $11,135 (36) $7,596 (40) $22,184. Vincennes Bridge Co., Vincennes, Ind., (3) $10,511 (4) $45,840 (34) $18,197 (36) $7,919 (37) $36,982 (40) $23,690 (41) $110,000. Zimmerly Bridge Co., Paris, (5) $7,803 (35) $25,076 (38) $19,480 (45) $15,585. F. Zimmerly, Paris, (22) $15,460 (27) $2,977. A. Layton Constr. Co., Muscatine, Wis., (6) $46,500 (8) $12,598 (25) $30,500 (44) $12,611. G. Sheldon, 312 Putnam Bldg., Davenport, Ia., (7) $62,100 (23) $30,726 (43) $207,317. G. H. Goodlink, Lawrenceville, (8) $13,969. J. T. Ransin, Robinson, (9) $19,380. J. T. Lyon, Robinson, (10) $37,250. Mautz & Oren, Effingham, (10) $37,900. Midwest Constr. Co., Des Moines, Ia., (11) $5,228 (12) $8,352 (14) $1,617. W. C. Johnson, 510 South High St., Belleville, (11) $6,416 (17) $20,286 (33) $56,099. Riley & Bailey, St. Louis, Mo., (12) $8,676 (15) $1,958 (28) $10,835 (30) $9,265 (31) $7,075. Love-Richards Co., Hoopeston, (13) $13,000 (15) $1,887 (16) $3,500 (17) $15,800 (32) $32,700 (33) $46,340. Madison Constr. Co., St. Louis, Mo., (13) $15,000. J. W. Etcheson, Casey, (14) $1,613. Dawson & Bowers Co., St. Louis, Mo., (16) $4,329 (28) $10,858. J. R. Stevens, Peoria, (18) $24,618. Gould Constr. Co., 501 Willman Ave., Davenport, Ia., (18) $29,483 (24) $31,987. Miller & Fife, Marshalltown, Ia., (18) $30,966. C. T. Laird, New Canton, (19) $10,544. R. Mann, 2031 3rd. Ave., Rockford, (19) $11,527 (26) $49,106. Universal Eng. Co., St. Clair, Wis., (19) $13,549. Federal Bridge & Structural Co., 108 South La Salle St., Chicago, (20) $11,365 (39) $74,279. Cleary & Healy, Cincinnati, O., (21) $11,908. Bohler & Ossler, St. Louis, Mo., (22) $16,379. Rochester Constr. Co., Rochester, Ind., (24) $31,334. D. Keith Long Point, (24) $32,743. Clinton Bridge Wks., 101 South 2nd St., Clinton, Ia., (25) $10,884. Stupp Bridge & Iron Wks., Frisco Bldg., St. Louis, Mo., (25) $11,115. Porter-McCully Co., Mackinaw, (26) $43,300. Bresie Rd. Supply Co, Mattoon, (27) $2,400. A. P. Poirot, 1528 North Church St., Belleville, (29) $6,359. Midwest Constr. Co., Cumberland, Ia., (29) $6,477. W. A. Edwards, Edwardsville, (30) $9,617 (32) $34,000. T. Hlad, Edwardsville, (30) $9,972. H. G. Hahn, Freeport, (31) $6,569. Herrick Constr. Co., Carlinville, (32) $32,850 (45) $15,510. L. C. Kesler, Herrick, (34) $21,240 (35) $25,193 (38) $18,469. Rochester Constr. Co., Rochester, Ind., (35) $29,201 (36) $7,299. Ferguson Constr. Co., Chicago, (39) $68,217. Decatur Bridge Co. Decatur, East Eldorado St. and Chicago, Illinois & Western R.R., (42) $35,863. F. O. Panton, Geneva, (44) $11,041. M. Frazier, Louisville, (45) $14,640. Noted Sept. 22.

CONTRACTS AWARDED

Wis., Sauk City—State Highway Comn., Madison, Sauk City Bridge over Wisconsin River between here and Roxbury, on State Trunk Highway 12, 995 ft. long, 20 ft. roadway, 6 ft. sidewalk, to Wausau Iron Wks., Wausau, $128,400. Noted Oct. 13.

Wash., Pasco—T. O. Webster, secy. Benton and Franklin Inter Co. Bridge Co., Union Trust Co., 3 East Main St., Walla Walla, bridge across Columbia River from here to Kennewick, 20 ft. roadway, to Union Bridge Co., Central Bldg., Seattle, $426,900. Noted Oct. 6.

Cal., San Bernardino—For 150 ft. rein.-con. arch bridge over Lytle Creek on Mt. Vernon Ave., to J. McNair Paving Co., 133 I St., $58,494. Noted Sept. 22.

Railways

BIDS DESIRED

New York—Nov. 9, by Transit Comn., 49 Lafayette St., New York, 2 track subsurface railroad extending under East and West 42nd St. Bryant Park and West 41st St. from westerly line of Vanderbilt Ave. to about westerly line of 8th Ave., known as Route 67, part of Queensboro Subway Rapid Transit R.R. G. McAneny, chn.

Excavation and Dredging

PROPOSED WORK

Ill., Lincoln — Making plans Salt Creek drainage ditch. $50,000. M. Hoblet, city chn. Keller, Gates & De Lew, 111 West Washington St., Chicago, engrs.

Florida—State Rd. Dept., Tallahassee, excavating canal along proposed fill of Choctawhatchee River Bridge Approach, from J. D. Donahue, Perry, $0.32 per cu.yd.; Pensacola Shipbuilding Co., Little Bayou, Pensacola, $.345; W. P. Kennedy Constr. Co., Quincy, $.38. Noted Sept. 29.

Wis., Madison—Dane Co. Drainage Bd. having plans prepared 2½ mi. open ditch and tile draining, 40,000 cu.yd. earth excav. $35,000. P. H. Hintze, Courthouse, engr.

Wis., Manitowoc—City, c/o A. Zaneler, clk., having plans prepared dredging Manitowoc River and making harbor and channel improvements. $30,000. F. Alter, City Hall, engr. Reiss Coal Co. and Manitowoc Shipbuilding Co. will appropriate toward cost.

Wash., Wenatchee—Wenatchee Recl. Dist. driving 3,310 ft. rock tunnel west of Cashmere and relining 1,300 ft. abandoned tunnel at Monitor, from Grant-Smith Co., Tacoma, $9.75 per lin.ft.; J. A. McEacheron Co., Bell St., Seattle, $15.75; Pacific Coast Paving Co., Perkins Bldg., Tacoma, $16.85.

Man., Winnipeg—Provincial Government plans D.D. 2, in southern Manitoba, known as Boyne Marsh, 449,591 acres. $800,000.

BIDS DESIRED

N. Y., Tompkinsville—Oct. 27, by M. Hulbert, comr. Docks, Pier "A" foot of Battery Pl., New York, dredging about 142,000 cu.yd. at Piers 6-11, between Arietta St., here and Congress St., Stapleton. Contr. 1723; 19,000 cu.yd. at Piers 12 and 13 between Congress and Water Sts., Stapleton, Contr. 1725.

Minn., Austin—Oct. 25, by Mower Co., Judicial Ditch 7, 12,037 ft. 10-26 in. tile branch A, B, C, 4,945 ft. 7-10 in. tile, branch D, E, F, G, H, I, 14,449 ft. 6-12 in. tile, branch J, K, L, M, N, O, $5,857 ft. 7-8 in. tile, 47 catch basins and 12 low press back water traps. $25,610. L. E. Pritchard, Albert Lea, engr.

Minn., Cambridge—Oct. 28, by Isanti Co, Ditch 20, 161,869 cu. yd. excav., $22,220; F. A. Norell and Co., Ditch 21, 49,524 cu. yd. excav., $8,699.

Mo., Charleston—Nov. 5, by C. E. Swank, dist. engr., D.D. 36 of Mississippi Co., 51,000 lin.ft. 8-24 in. tile.

Wyo., Riverton—Dec. 1, by P. B. Dykeman, secy. Riverton Valley D.D., and A. H. Ayers, engr., Box 246, drainage system, 9 mi. 10-21 in. tile drains, 12,500 cu.yd. excav. $100,000. Noted Aug. 11.

CONTRACTS AWARDED

N. J., Trenton—Dredging—Bd. Commerce and Navigation, State House, dredging section of proposed inland waterways connecting Barnegat Bay with Manasquan River to L. B. Harrison, Market Island, Paterson, $.245 cu.yd. Noted Sept. 8.

Minn., Windom—Cottonwood Co. Ditch 31, to O. M. Anderson, Windom, $30,498. Noted Sept. 29.

Streets and Roads

PROPOSED WORK

Pennsylvania—State Hy. Dept., Harrisburg, rejected bids opened Sept. 27, 2,990 ft. one course rein.-con., Center Twp., Beaver Co. Noted Oct. 6.

Pa., Lewistown—Nov. 8 to vote on $20,000 bonds to grade and pave Lorcas, Logan, Wayne and Market Sts., total $60,000. Property owners will pay balance. C. C. Brown, Yeagertown, engr.

Ohio—Dept. Hys. and Pub. Wks., Columbus, cancelled contracts for grading, building bridges and culverts on 2.955 mi. Sect. "C" McArthur-Gallapolis Rd., Vinton Co., $54,991; bridge on Sect. "D" West Union-Sinking Springs Rd., Adams Co., $6,180. L. C. Herrick, dir. highways. Noted Sept. 29.

Streets and Roads (Continued)

O., Bridgeport—Nov. 1 to vote on $175,000 bonds to pave National Rd., brick on concrete. R. Sykes, city engr.

O., Columbus—Plans grading, curbing, laying water mains and paving 4,536 ft. 4th St. from State St. to Livingston Ave. brick, $100,306, asphalt, $101,781. R. H. Simpson, City Hall, engr. Noted Sept. 29.

Va., Martinsville—Henry Co. plans 76½ mi. highway system, mostly topsoil, connecting with all important North Carolina roads touching Henry Co. $380,000. H. D. Whittle, Martinsville, engr.

North Carolina—State Hy. Comn., Raleigh, plans grading and surfacing 9.7 mi. road from Polk Co. line to Rutherfordton, State Project 691 B, Rutherford Co., $60,000, 5 mi. Government Reservation Rd. to Central Highway near Marion, State Project 688, McDowell Co., $30,000; clearing, grading, bridging and surfacing 13 mi. road from Columbus to Rutherford Co. line, State Project 691 A, Polk Co., $80,000. C. M. Upham, state highway engr.

North Carolina—State Hy. Dept., Raleigh, plans grading, bridging and surfacing 3.5 mi. State Project 690, Avery Co., $25,000, 9.9 mi. road from Pittsboro to Moncure, State Project 692, Chatham Co., $70,000; grading and surfacing 6 mi. road from Glen Alpine to Bridgewater, State Project 689, Burke Co., $35,000; clearing and surfacing 12 mi. road from Lenoir-Jones Co. line to Trenton, State Project 536 A, Jones Co., concrete or some asphaltic type, $330,000. C. M. Upham, state highway engr.

N. C., Rocky Mount—Soon receives bids grading, curbing, laying storm sewers and paving various streets, 67,000 sq.yd. asphalt on concrete, $210,000; 20,000 ft. 4, 8 and 10 in. sanitary sewers, $15,000. J. J. Wells, Rocky Mount, engr. Noted July 28.

N. C., Tryon—To vote Nov. 1 on $60,000 bonds paving various streets. M. G. Blake, Tryon, engr.

N. C., Wilmington—Plans paving various streets. $100,000. Carolina Eng. Co., Wilmington, engrs.

N. C., Wilson—Wilson Co. to vote on $2,000,000 bonds for roads. H. B. Lane, chn. bd. comrs.

La., Monroe—Ouachita Parish plans 16 mi. road, $160,000.

La., Ruston—Lincoln Parish plans 27 mi. road, $300,000.

Ill., Bloomington—Making plans paving East Jefferson St., asphalt on concrete. $27,000. T. M. Lancaster, City Bldg., engr.

Ill., Champaign—Plans widening and paving Randolph, Hill, State, Park and University Sts. $50,000. F. C. Lohman, city engr.

Ill., Waukegan — Making plans paving various streets, vitr. brick on concrete. $27,000. M. J. Douthit, city engr.

Mich., Detroit—Wayne Co. Park Trustees plan grading and clearing 2 mi. Elizabeth Park Drive, at Elizabeth Park, Slocums Island. $25,000. W. E. Metzger, 201 County Bldg., chn.

Ia., Orange City—Sioux Co. making plans grading 20 mi. North Iowa Pike Rd., 18 ft. Federal Aid Project 22. $200,000. W. A. Aardappel, co. engr.

Minn., Mahnomen — Mahnomen Co. and Clearwater Co., (Bagley) plan to grade 15 mi. road, 24 ft., from here to connect with Green Trail from Bagley to Itasca State Park. $30,000. E. S. Rankin, Mahnomen, engr.

Mo., St. Louis—Making plans paving Alleys 948, 2587, 2588, 2718, 3337, 4054, 4519, 4661, 4991, 5084 and 5236, vitr. brick on concrete. $70,000. E. R. Kinsey, dir. Pub. Serv. Engineers name withheld.

Tex., Fredericksburg—Gillespie Co. plans grading and building bridges on 8.39 mi. Fredericksburg-Austin Highway, 800 cu.yd. concrete. $49,913. A. F. Moursand, co. engr.

Tex., Gainesville—Cooke Co. making plans grading and gravel surfacing 1.82 mi. Denton-Gainesville Rd., Highway 40, 16 ft. $36,850. T. E. Huffman, co. engr.

Tex., Tyler — Smith Co. making plans grading and surfacing 2.66 mi. Tyler-Mineola Highway from Tyler to Wood Co. line, 20 acres heavy clearing, 140,000 cu.yd. excav., 23,500 sq.yd. concrete, 45,000 cu.yd. gravel clay. $210,000. D. K. Caldwell, co. engr.

Tex., Uvalde—J. J. Wainwright, mayor, takes bids about Oct. 20, paving 5 mi. Main and various other streets, 100,000 sq.yd. asphalt. $200,000. E. R. Benson, Uvalde, engr.

Tex., Uvalde—Uvalde Co. plans grading, gravel surfacing and building bridges on state and county highways and main county roads. $550,000. E. R. Bowie, co. engr.

Okla., Wetumka—Had plans prepared paving, curbing and guttering main business streets. $120,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Ont., Ottawa—Plans 24,000 sq. yd. wood block and asphalt paving. $112,000. A. F. Macallum, city engr.

BIDS DESIRED

N. Y., Brooklyn—Oct. 26, by E. Riegelmann, boro pres., resurfacing Atlantic Ave. southside from Van Sinderen to Georgia Aves., Atlantic Ave. southside from Pennsylvania to New Jersey Aves., Blake Ave. from Hinsdale St. to Sheffield Ave., East New York Ave. from Williams Ave. to Fulton St., Hicks St. from Middagh St. to Grace Court, Kent Ave. from Myrtle to Lafayette Aves., Linden Ave. from Flatbush to Rogers Aves., Ocean Ave. from point 50 ft. north of Ave. O to Kings Highway, Somers St. from Bway. to Eastern Parkway extension, South 3rd St. from Rodney to Keap Sts., Windsor Pl. from 8th to 10th Aves., asphalt; grading, curbing and laying sidewalks on Bristol St. from Lott to Hegemand Ave.; grading portion of lot on northeast corner of Winthrop St. and Nostrand Ave.; repaving Atlantic Ave. from point 100 ft. west of Bedford Ave. to point 100 ft. east of Nostrand Ave., from point 100 ft. west of Ralph Ave. to point 100 ft. east of Dewey Pl. and from Eastern Parkway extension to Jardine Pl., asphalt on 6 in. concrete.

N. Y., Brooklyn—Oct. 27, by Park Bd. at office Dept. Parks, Municipal Bldg., New York, improving Ocean Parkway main road from Coney Island Creek Bridge towards Coney Island. F. D. Gallatin, pres.

N. Y., S. I., St. George—Oct. 24, by C. D. Van Name, pres. Richmond Boro., Boro Hall, concrete sidewalks on Egbert Ave. from Jewett to Brookside Aves., Newark Ave. from Innis St. to point 550 ft. south of Richmond Terrace, Davidson St. from Grand View Ave. to point 91 ft. east of Andros Ave.

New Jersey—Oct. 31, State Hy. Comn., Trenton, Route 6, Gloucester Turnpike beginning at railroad crossing near north town line of Woodbury and extending to Jersey Ave., Gloucester, Camden and Gloucester Counties. A. W. Muir, 517 Broad St. Bank Bldg., supt. maintenance; adv. this issue.

N. J., Allenhurst—Oct. 25, by Boro Commissioners, improving Main St. from northerly line of Elberon Ave. to southerly line of boro. N. Rogers, engr., adv. this issue.

North Carolina—Oct. 27, by State Hy. Dept., Raleigh, clearing, grading, bridging and surfacing 9.93 mi. State Project 578, Craven Co., 12 acres clearing, 63,600 cu.yd. excav., 93,150 sq.yd. concrete or asphaltic paving, 624 cu.yd. concrete, 52,880 lb. reinforcing, 780 ft. untreated timber piles, etc., $355,000, 15 mi. State Project 536 B. Jones Co., 15 acvres clearing 80,600 cu.yd. excav., 23,100 cu.yd. drainage ditches, 660 ft. 18-30 in. concrete pipe, 82,390 sq.yd. concrete paving, 678 cu.yd. concrete, 52,560 lb. reinforcing, 1,200 ft. timber piles, etc., $323,000, 10 mi. State Project 616, Wayne Co., 7 acres clearing 33,500 cu.yd. excav., 105,780 sq.yd. concrete or asphaltic paving, 570 cu.yd. concrete, 44,000 lb. reinforcing, 1,000 ft. untreated timber piles, $350,000; grading and paving 6.81 mi. State Project, 599 Greene Co., 34,700 cu.yd. excav., 590 ft. 15-24 in. concrete pipe, 29 cu.yd. concrete, 63,770 sq.yd. concrete or some asphaltic type of paving, $200,000, 12 mi. State Project 694, Old Federal Aid Project 90, Pamlico Co., 12,600 cu.yd. grading 112,650 sq.yd. concrete or some asphaltic type of paving, $340,000. C. M. Upham, state highway engr. Noted July 7, Aug. 25 and Oct. 13.

Louisiana—Oct. 31, by State Hy. Dept., New Orleans, gravel surfacing 5.76 mi. Prairie-Ronde Rd. A, 4 mi. West Bellevue Rd. B, 2.94 mi. Daly-Lewisburg Rd. C and 3.57 mi. Shuteson-Church Port Rd., St. Landry Parish.

Kentucky—Oct. 27, by State Hy. Dept., Frankfort, shaping and surfacing, with waterbound macadam, waterbound macadam surface treated or river gravel, 12 mi. Louisville-Paducah Rd., State Project 8, Sect. A, Federal Aid Project 54, Livingston Co., 18 acres clearing, 72,828 cu.yd. earth, 4,684 cu.yd. solid rock and 15,226 cu.yd. borrow excav., 34,420 cu.yd. river gravel. 22,522 gal. bituminous prime coat, 37,537 gal. C. O. or M. Y. Special. 2nd application, etc.; shaping and surfacing, with bank gravel, waterbound macadam or waterbound macadam surface treated, 7 mi. Cadiz-Hopkinsville Rd., State Project 1, Sect. A, Federal Aid Project 44, Christian and Trigg Counties, 12,702 cu.yd. earth excav., 7,878 cu.yd. borrow, 18,942 cu.yd. bank gravel, 30,993 ton crushed limestone, 775 ton stone chips, 12,397 gal. prime coat, 20,662 gal. cold oil or med. tar special, etc.; shaping and surfacing 2.4 mi. Louisville-Paducah Rd., from Sta. 1 plus 00 to Sta. 125 plus 85, State Project 8, Sect. A, Federal Aid Project 58, McCracken Co., from Sta. A plus 00 to 105 plus 00, with gravel, waterbound macadam or waterbound macadam surface treated, from Sta. 105 plus 00 to 125 plus 85, rein.-con., rock asphalt, bituminous concrete topeka mix, or bituminous macadam penetration type, 10,284 cu.yd. earth excav., 10,424 gal. bituminous material, 356 ton rock asphalt, 4,633 sq.yd. bituminous and 4,633 sq.yd. rein.-con., 308 cu.yd. bank gravel for shoulders, 9,154 ton crushed stone or 5,596 cu.yd. bank gravel, etc.; shaping and grading 4.1 mi. Smithland-Eddyville Rd., State Project 10, Sect. A, Livingston Co., 2 acres clearing, 18,968 cu.yd. earth excav., etc., 7 mi. Marion-Princeton Rd., State Project 10, Sect. A, Crittenden Co., 26,571 cu.yd. earth excav., etc. J. S. Boggs, state highway engr.

Ohio—Oct. 25, by Dept. of Highways & Pub. Wks., Columbus, grading, building bridges and culverts and paving 2.138 mi. Sect. "Huron" I.C.H. 3, Erie Co., rein.-con., $112,051, 1.044 mi. Sect. "H-3" I.C.H. 26, Jefferson Co., brick, $57,737; grading and paving 0.197 mi. Sect. "M" I.C.H. 289, Huron Co., brick (state to furnish brick), $6,318, 0.447 mi. Sect, "N" I.C.H. 289, brick (state to furnish brick), $16,102, 0.614 mi. Sect. "O" I.C.H. 289, monolithic brick (state to furnish brick), $27,842. L. C. Herrick, dir. highways.

Ill., Chicago—Oct. 24, Bd. Local Impvts., 207 City Hall, paving and recoating North and South State St. from Jackson to Lake Sts., 260 sq.yd. granite block, 45,480 sq. yd. asphalt, 1,860 sq.yd. concrete, 23 brick catchbasins. $119,500. C. D. Hill, ch. engr.

Ia., Cresco—Oct. 25, Auditor Howard Co., gravel surfacing 11.5 mi. Federal Aid Project 93, from Riceville east toward here, 23,000 cu.yd. gravel.

Ia., Mt. Ayr—Oct. 26, Auditor Ringgold Co., grading 8.79 mi. primary roads, west, east and north from here, Federal Aid Project 123, 183,773 cu.yd. earth excav.

Tex., La Grange—Nov. 1, by J. P. Ehlinger, judge Fayette Co., grading and gravel surfacing 7.29 mi. State Highway 3-B, 16 ft. $123,382. A. Schlafli, co. engr. Noted Oct. 6.

Tex., La Grange—Nov. 1, by J. P. Ehlinger, judge Fayette Co., surfacing 11.27 mi. Highway 3, 16 ft., about 160,000 cu.yd. gravel. $70,000. Former bids rejected. A. Schlafli, Schulenberg, co. engr. Noted Oct. 13.

Tex., Palestine—Oct. 31, by City Secretary, 80,986 sq. yd. sheet asphalt, asphaltic composition, willitte, wood blocks, brick, rock asphalt or warrenite bitulithic pavement, 49,990 lin. ft. curb and gutter, and 26,876 cu. yd. excav. F. L. Dormant, city engr.

New Mexico—Nov. 2, by State Hy Comn., Santa Fe, 14.242 mi. road between Roswell and Kenna, including bridges, Federal Aid Project 57, Chaves Co., 30,969 cu.yd. excav., 5.019 mi. crowning and shaping, 11, 398 cu.yd. 1 course gravel, 439 cu.yd. concrete and 11,403 lb. reinforcing, etc.; 13.024 mi. road between Clovis and Grady, including bridges, Federal Aid Project 63, Curry Co., 14,444 cu.yd. excav., 7.564 mi. crowning and shaping, 247.56 cu.yd. concrete and 13,621 lb. reinforcing, etc. L. A. Gillett, state highway engr.

California—Oct. 31, by State Hy. Comn., Sacramento, concrete paving 7.4 mi. highway between Los Flores Canyon and Santa Monica, Los Angeles Co; grading 4.3 mi. highway between Clements and eastern boundary, San Joaquin Co. A. B. Fletcher, state highway engr.

BIDS RECEIVED

N. Y., Brooklyn—Dept. of Parks, Municipal Bldg., New York City, improving main roadway of Ocean Parkway between Ave. W. and Coney Island Creek Bridge, etc., here, from Cranford Co., 52 9th St., $154,721; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $155,844; Borough Asphalt Co., 1301 Metropolitan Ave., $162,567.

N. J., Weehawken—Bd. Freeholders Hudson Co. (Jersey City) paving [illegible] mi. Hackensack Plank Rd. between Hudson Blvd, and Weehawkeen St., granite block on con-

Streets and Roads (Continued)

crete, from Hornung Constr. Co., 711 Dubois St., West Hoboken, 81% engineers estimate ($178,000); R. Sangiovanni, 80 Hoyt St., Newark, 87.7%; E. J. Flaherty Constr. Co., 76 Montgomery St., Jersey City, 88.7%. Noted Sept. 15.

S. C., Ridgeland—Jasper Co. grading, surfacing and bridging 15 mi. road between here and Pocataligo, from Lawler & Cartledge, Toccoa, Ga., $53,584; J. T. Blassingame, Greenville, $61,041; C. E. Perry, Ridgeland, $62,680. Noted Sept. 29.

Ohio—Dept. Hys. and Pub. Wks., Columbus, grading, building bridges and culverts on roads in following counties:

Wayne Co., Sect. "P" Akron—Wooster Rd., 2.028 mi., from Peters & Baird, Wadsworth, $27,026; Cavanaugh Deniro Co., Youngstown, $27,284; Hogan Excavating Co., Cleveland, $28,969.

Sect. "K" Orville — Northern Rd. 3.174 mi., Zeller & Drum, Swanton, $17,054; Peter Beney, Wadsworth, $17,102; Cavanaugh De Niro Co., Youngstown, $17,517. Noted Sept. 29.

O., Cleveland—Grading, curbing and paving (1) East 154th St., (2) Colonial Court, 3,050 lin.ft. curb and gutter, 32,090 cu.yd. earth excav., 50,500 sq.ft. vitr. brick on concrete, (3) Jeffreys Ave. from Turney Rd. to 86th St., (4) Jeffreys Ave. from Warner Rd. to westerly end, (5) Rhodes Ave., 4,450 lin.ft. curb and gutter, 3,210 cu.yd. earth excav., 72,300 sq.ft. vitr. brick on 6 in. concrete, (6) East 134th St., (7) Aetna Rd., (8) Fairchild Ave. 3,800 lin.ft. curb and gutter, 2,780 cu.yd. earth excav., 47,980 sq.ft. vitr. brick on 6 in. concrete, (9) Bosworth Rd., (10) Ardmore Ave., 4,160 lin.ft. stone curb, 5,950 cu.yd. earth excav., 73,120 sq.ft. vitr. brick on 6 in. concrete, from Post Constr. Co., Fairchild Ave., (1) $27,677; Gould & Maybach, 823 East 150th St., (1) $27,757; Garland Bros., c/o Pavers Exch., Society for Savings Bldg., (2) $5,135; H. G. Herring, c/o Pavers Exch., Society for Savings Bldg., (2) $5,171, (8) $6,096; Fischer & Williams, 16010 Lorain Rd., West Park, (3) $16,601, (4) $17,485, (5) $13,058, (6) $10,023, (7) $15,389, (8) $6,325, (9) $19,541, (10) $26,055; Roehl Bros., West 25th St. and Clark Ave., (5) $14,377, (9) $18,925, (10) $26,857; Enterprise Paving & Constr. Co., 8444 Bway., (3) $17,214, (4) $18,040, (6) $10,418; Baldwin Bros., 4500 Euclid Ave., (7) $15,889. Noted Sept. 29.

O., Cleveland—Grading, curbing and paving (1) East 130th St., 86,400 sq.ft. vitr. brick on 6 in. concrete, 6,250 lin.ft. stone curb and gutter, (2) Parkview Ave., (3) East 69th St., 1,270 lin.ft. stone curb and gutter, 42,970 sq.ft. vitr. brick on 6 in. concrete, (4) Locust Ave., (5) Imperial Ave., 7,350 lin.ft. stone curb, 104,000 sq.ft. vitr. brick on 6 in. concrete, (6) East 144th St. (7) East 133rd St., 5,630 lin.ft. stone curb and gutter, 67,050 sq.ft. vitr. brick on 6 in. concrete, from Fischer & Williams, 16010 Lorain Rd., West Park, (1) $49,677, (2) $23,006, (4) $16,853, (5) $46,144, (6) $33,823, (7) $9,709; A. M. Pejsa Paving Co., Essex Rd., (1) $52,440; Post Constr. Co., Fairchild Ave., (2) $23,249; Burnett & Hathaway, c/o Pavers Exch., Society for Savings Bldg., (3) $9,223; River Constr. Co., Schofield Bldg., (3) $9,573; Freshwater Constr. Co., Natl. Bldg., (4) $17,299; Reiley Bros., The Arcade, (5) $49,857; Gould & Maybach, 823 East 150th St., (6) $33,522; Enterprise Constr. Co., 8444 Bway., (7) $10,055. Noted Sept. 29.

Mich., Detroit — Paving (1) Lillibridge Ave., resurfacing (2) Leland St., (3) Illinois St., (4) Hazel St., (5) Benson St. from Mt. Elliot to Beaufait Aves., (6) Benson St. from Bellevue to Boulevard Aves., from Detroit Asphalt Paving Co., 20 McGraw Bldg., (1) $50,327, (2) $2,184, (3) $4,368, (4) $5,460, (5) $3,822, (6) $5,460; Cleveland Trinidad Paving Co., 402 Hammond Bldg., (1) $51,277, (2) $2,292, (3) $4,584, (4) $5,730 (5) $4,011, (6) $5,730. Noted Oct. 6.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, opened bids Oct. 4 paving (1) 0.18 mi. Route 1, Sect. 26, Vermilion Co., (2) 2.99 mi. Route 2, Sec. 1, Jackson Co., (3) 7.25 mi. Route 2, Sect. 3, Jackson Cp., (4) 6.94 mi. Route 2, Sect. 4, Jackson-Perry Co., (5) 17.19 mi. Route 2, Combination 1, Jackson-Perry Co., (6) 14.19 mi. Route 2, Combination 2, Jackson-Perry Co., (7) 5.98 mi. Route 2, Sect. 5, Perry Co., (8) 4.68 mi. Route 2, Sect. 6, Perry Co., (9) 10.67 mi. Route 2, Combination 3, Perry Co., (10) 5.98 mi. Route 2, Sect. 7, Perry-Washington Co., (11) 5.41 mi. Route 2, Sect. 8, Washington Co., (12) 11:13 mi. Route 2, Combination 4, Perry-Washington Co., (13) 21.79 mi. Route 2, Combination 5, Perry-Washington Co., (14) 38.97 mi. Route 2, Combination 7, Perry-Washington Co., (15) 2.65 mi. Route 4, Combination 9, Livingston Co., (16) 7.1 mi. Route 4, Sect. 14, McLean Co., (17) 6.32 mi. Route 7, Sect. 5, Henry Co., (18) 4.35 mi. Route 7, Sect. 7, Bureau-Henry Co., (19) 2.44 mi. Route 7, Sect. 8, Bureau Co. (20) 6.8 mi. Route 7, Combination 12, Bureau-Henry Co., (21) 13.13 mi. Route 7, Combination 13, Bureau-Henry Co., (22) 6.27 mi. Route 9, Sect. 11, Woodford-McLean Co., (23) 6.08 mi. Route 10, Sect. 4, Champaign Co., (24) 2.69 mi. Route 10, Sect. 7-S, Piatt Co., (25) 5.87 mi. Route 10, Sect. 8, Piatt Co., (26) 8.56 mi. Route 10, Combination 14, Piatt Co., (27) 4.16 mi. Route 10, Sect. 9, Piatt Co., (28) 12.73 mi. Route 10, Combination 15, Piatt Co., (29) 4.2 mi. Route 10, Sect. 11, Macon Co., (30) 5.7 mi. Route 10, Sect. 16, Sangamon-Macon Co., (31) 5.68 mi. Route 10, Sect. 17, Sangamon Co., (32) 11.38 mi. Route 10, Combination 16, Sangamon Co., (33) 5.67 mi. Route 10, Sect. 18, Sangamon Co., (34) 1.25 mi. Route 10, Sect. 19, Sangamon Co., (35) 6.92 mi. Route 10, Combination 17, Sangamon Co., (36) 18.33 mi. Route 10, Combination 18, Sangamon Co., (37) 7.3 mi. Route 10, Sect. 21, Sangamon Co., (38) 5.25 mi. Route 10, Sect. 23, Sagamon Co., (39) 12.55 mi. Route 10, Combination 19, Sangamon Co., (40) 6.2 mi. Route 12, Sect. 4, Richland Co., (41) 5.81 mi. Route 13, Sect. 1, Williamson Co., (42) 4.98 mi. Route 13, Sect. 5, Jackson-Williamson Co., (43) 6.54 mi. Route 15, Sect. 5, Washington Co., (44) 5.18 mi. Route 15, Sect. 6, Washington Co., (45) 4.13 mi. Route 15, Sect. 7, Washington Co., (46) 15.86 mi. Route 15, Combination 8, Washington Co., (47) 2.15 mi. Route 15, Sect. 8, Washington Co., (48) 5.95 mi. Route 15, Sect. 9, Washington Co., (49) 4.8 mi. Route 15, Sect. 10, Washington Co., (50) 12.9 mi. Route 15, Combination 9, Washington Co., (51) 28.77 mi. Route 15, Combination 10, Washington Co., (52) 67.75 mi. Route 15, Combination 11, Washington Co., (53) 5.83 mi. Route 18, Sect. 9, Du Page Co., (54) 6.45 mi. Route 18, Sect. 10, Du Page Co., (55) 12.68 mi. Route 18, Combination 21, Du Page Co., (56) 4.73 mi. Route 23, Sect. 2, La Salle Co., (57) 1.08 mi. Federal Aid Project 9, Sect. 27, Madison Co., (58) 0.65 mi. State Park, Sect. P-3, La Salle Co.; grading, (59) 4.06 mi. Route 1, Sect. 4-A, White Co., (60) 8.02 mi. Route, 1, Sect. 5-A, White Co., (61) 12.08 mi. Route 1, Combination 22, White Co., (62) 5.66 mi. Route 1, Sect. 6-A, White-Edwards Co., (63) 4.49 mi. Route 1, Sect. 7-A, Edwards Co., (64) 10.16 mi. Route 1, Combination 23, Edwards Co., (65) 5.66 mi. Route 1, Sect. 8-A, Edwards-Wabash Co., (66) 4.59 mi. Route 1, Sect. 9-A, Wabash Co., (67) 3.64 mi. Route 1, Sect. 10-A, Wabash Co., (68) 13.9 mi. Route 1, Combination 24, Edwards-Wabash Co., (69) 36.14 mi. Route 1, Combination 25, Edwards-Wabash Co., (70) 0.84 mi. Route 1, Sect. 17-A, Lawrence Co., (71) 5.54 mi. Route 1, Sect. 18-A, Crawford Co., (72) 2.87 mi. Route 1, Sect. 19-A, Crawford Co., (73) 9.25 mi. Route 1, Combination 26, Lawrence-Crawford Co., (74) 4.11 mi. Route 8, Sect. 5-A, Warren-Henderson Co., (75) 5.48 mi. Route 8, Sect. 6-A, Henderson Co., (76) 7.38 mi. Route 8, Sect. 7-A, Henderson Co., (77) 16.96 mi. Route 8, Combination 27, Henderson Co., (78) 16.96 mi. Route 8, Combination 28, Henderson Co., (79) 1.87 mi. Route 8, Sect. 11-A, Peoria Co., (80) 4.83 mi. Route 15, Sect. 22-A, Wayne Co., (81) 3.2 mi. Route 37, Sect. 2-A, Jefferson Co., (82) 3.2 mi. Route 37, Combination 29, Jefferson Co., from C. W. Clarke & Co., Clinton, Ind., (1) $3,744 (23) $125,753 (27) $89,845 (29) $94,374. W. Roy, Danville, (1) $5,040. H. H. Hall Constr. Co., Murphy Bldg., East St. Louis, (2) $71,132 (3) $161,924 (4) $170,418 (5) $393,000 (7) $137,751 (8) $111,040 (9) $242,000 (10) $147,716 (11) $157,034 (12) $285,000 (14) $911,000 (41) $134,301 (42) $116,877 (43) $154,234 (44) $125,550 (45) $102,593 (46) $367,000 (47) $499,000 (48) $149,080 (49) $119,466 (51) $674,000 (52) $1,570,000 (57 $25,693. Mautz & Oren, Effingham, (2) $76,499 (3) $166,231. Madison Constr. Co., Edwardsville, (2) $76,637. C. J. Moritz, Effingham, (3) $165,589 (16) $148,082. J. W. Etchison, Casey, (4) $167,310 (8) $111,567 (26) $181,255 (31) $135,991 (32) $278,708 M. Hayes & Son, Janesville, Wis., (4) $176,971 (6) $345,000 (7) $143,928 (8) $113,870 (9) $255,000 (40) $151,473 (60) $26,715 (61) $55,500 (64) $44,000. Allied Constr. Co., 404 Peters Trust Bldg., Omaha, Neb., (5) $459,000 (10) $160,499 (11) $145,766 (13) $572,000 (30) $145,328 (33) $132,133 (34) $28,862 (37) $178,085 (38) $122,467 (39) $297,000 (50) $346,500. Wright Constr. Co., 211 Flynn Blk., Des Moines, Ia., (7) $138,638 (19) $56,544. R. L. Williams, Wyatt, Mo., (10) $163,122. Alzina Constr. Co., Springfield, (9) $282,400. Reich-Reilly Constr. Co., Goshen, Ind., (11) $159,615 (13) $585,880. D. A. Myers, 209 West Armstrong St., Peoria, (15) $58,413. R. Todd & Son, Pontiac, (15) $59,430. C. Upham, Pontiac and Odell, (15) $60,965. R. F. Conway, 133 West Washington St., Chicago, (16) $144,872 (17) $146,396 (18) $89,894 (19) $52,518 (20) $133,000 (21) $276,100 (56) $96,948. K. K. Rhodes, Lincoln, (16) $148,650. Central Eng. Co., 711 Putnam Bldg., Davenport, Ia., (17) $150,077 (18) $98,282 (20) $147,615 (22) $175,528. J. J. Dunnegan, Shenandoah, Ia., (17) $152,430 (20) $163,000. H. A. Reschke Co., Geneva, (18) $94,805 (19) $55,009. C. E. Carson, 155 North Clark St., Chicago, (21) $280,500 (46) $403,750. Chicago Heights Coal Co., Chicago Heights, (21) $280,685 (36) $404,673 Hedges Constr. Co., 111 West Washington St., Chicago, (22) 135,756 (30) $143,099 (31) $136,230 (32) $273,000. Jansen & Schafer, Pekin, (22) $181,104. W. C. Meneeley, 709 North Clay St., Frankfort, Ind., (23) $119,212 (24) $54,406 (28) $25,900 (29) $91,092 (30) $122,509 (31) $127,853 (33) $120,861 (34) $26,042 (36) $393,800. C. Taggart, Martinsville, Ind. (23) $126,552. W. F. Lodge, Monticella, (24) $51,273. Becker-Engart Co., Rochester, Ind., (24) $52,753 (25) $144,443 (27) $84,653 (28) $247,000. Piatt County Bd., Monticello, (25) $124,593 (27) $91,197. King & Baker, Dudley, (25) $123,594 (26) $180,000. H. C. Finley Constr. Co., Hooperton, (26) $184,258. Warner Contg. Co., 730 Waveland Ave., Chicago, (29) $96,829. Bates & Rogers Constr. Co., 37 West Van Buren St., Chicago, (32) $301,094 (35) $175,788. J. P. Schuell, Muskegon, Mich., (33) $137,085 (34) $29,583 (38) $129,275 (39) $300,342. W. F. Smith Co., Rennselaer, Ind., (36) $425,109. Edwardsville Constr. Co., Edwardsville, (37) $177,516. Cameron, Joyce Co., Keokuk, Ia., (37) $138,320 (38) $127,133 (61) $63,943 (64) $43,505 (68) $75,493 (69) $181,941 (77) $103,963 (80) $47,546 (81) $16,556 (82) $39,556. Federal Paving Co., 133 West Washington St., Chicago, (39) $301,000 (55) $280,000. Foulkes Constr. Co., 705 Ohio St., Terre Haute, Ind., (40) $149,828. Wabash Constr. Co., Vincennes, Ind., (40) $150,406 (45) $111,713. Keokuk Quarry & Constr. Co., Keokuk, Ia., (41) $123,082 (42) $106,933. Ready & Callaghan, 133 West Washington St., Chicago, (41) $149,736 (42) $131,287 (80) $43,895. W. C. Johnson, 510 South High St., Belleville, (43) $162,314 (44) $131,112 (45) $109,503 (46) $382,783, (47) $54,037 (48) $153,380 (49) $125,371 (50) $316,149. Miner Co., Monroe, Wis., (43) $165,129 (44) $113,555. C. E. Berns & Co., Indianapolis, Ind., (47) $55,109 (48) $156,600 (49) $127,501 (56) 104,015. Cook County Constr. Co., Chicago, (53) $121,478 (54) $124,341 (55) $235,000. A. Ward & Son, Oak Glen, (53) $124,860. Pronger & Black, Blue Island, (53) $132,435 (54) $150,478 (55) $282,000. W. A. Jaicks, Chicago, (54) $139,680. J. Mackler & Co., Chicago Heights, (56) $103,797. Hug Lumber & Constr. Co., Highland, (57) $30,599. A. Trompeter & Son, Peru, (58) 15,397. Lamoreaux Bros., St. Louis, Mo., (59) $20,946 (60) $30,550 (62) $23,160 (63) $14,068. (74) $20,584 (75) $39,725 (76) $35,647 (79) $25,768. New Era Constr. Co., 3735 North Halsted St., Chicago, (59) $25,083 (60) $32,099 (62) $22,536 (63) $15,568 (70) $25,763 (71) $29,202. Burns & Olsen, St. Joseph, Mo., (59) 27,565. (61) $57,570 (64) $37,059 (65) $34,878 (66) $20,672 (67) $19,808 (68) $67,822 (69) $162,452 (72) $26,313 (73) $80,271 (79) $25,918. Ellen & Costello Bros., Owensboro, Ky., (62) $23,687 (65) $34,625 (66) $20,980 (67) $19,599 (69) $177,930 (70) $26,141 (72) $25,848 (73) $84,000. F. R. Milure, Bridgeport, (63) $15,238 (71) $31,059. Johnston, Austin & Mauritz, Benton, (65) $32,490 (66) $20,098 (67) $19,249 (68) $71,500 (81) $13,289. Dees Bros., Oblong, (70) $27,194 (73) $87,000. Manigold Co., St. Louis, Mo., (71) $32,357. G. E. Dailey, Lawrenceville (72) $25,361. Andrew & Hanan, Keokuk, Ia. (74) $20,533 (75) $43,191 (76) $38,708 (77) $102,400. A. O. McCoy, Clayton, (7) $24,434 (76) $46,561. Monmouth Gate & Mfg. Co., Monmouth, (75) $48,585. P. F. Shugart, Springfield (77) $112,230. Hepderson Bros., Rockford, (78) $176,479. J. Marsch Co., 1307 Wrightswood Ave., Chicago, (79) $25,843 (80) $49,765. Keating Bros., St. Louis, Mo., (81) $16,184. Furmel & Foothaker, Effingham, (82) $35,000. G. E. Hoffman, Lincoln, (82) $35,667. Noted Sept. 22.

Tex., Big Springs—Howard Co. grading and surfacing 34.2 mi. State Highway 1, from Womack Constr. Co., McKinney, $250,735; Lee-Moor Contg. Co., Two Republics Bldg., El Paso, $256,259; El Paso Bitulithic Co., Box 161, El Paso, $270,032. Noted Sept. 29.

Tex., Midland—Midland Co. grading and surfacing 26.91 mi. State Highway 1, Bankhead Highway, from M. M. Craven, Fredericksburg, $186,727; El Paso Bitulithic Co., Box 161, El Paso, $201,620;

Streets and Roads (Continued)

Womack Constr. Co., McKinney, $205,743. Noted Sept. 29.

Tex., Odessa—Ector Co. grading and surfacing 24.74 mi. State Highway 1, from El Paso Bitulithic Co., Box 161, El Paso, $197,448; McClung Constr. Co., c/o G. H. McClung, Cleburne, $205,252; Womack Constr. Co., McKinney, $209,355. Noted Sept. 29.

Tex., Pecos—Reeves Co., grading and surfacing 9.69 mi. State Highway 1, from W. E. Hamilton, Van Horn, $36,860; O'Connor, McEnroe & Moreland, Box 365, Cleburne, $40,053; Tibbetts Constr. Co., Mineral Wells, $48,630. Noted Sept. 22.

Tex., Port Lavaca—Calhoun Co. grading and surfacing 11.37 mi. State Highway 7, from W. T. Hutto & Sons, Gonzales, $103,759; Walling, Adams & Harris, Houston, $127,612; Miller Constr. Co., Port Lacava, $135,990. Noted Sept. 29.

Tex., Stanton—Martin Co., grading and surfacing 12.79 mi. State Highway 1, from Womack Constr. Co., McKinney, $93,398; El Paso Bitulithic Co., El Paso, $97,851; M. M. Craven, Fredericksburg, $99,002. Noted Sept. 29.

CONTRACTS AWARDED

R. I., Providence—Water Supply Bd. 4½ mi. road in Scituate, to J. Bristow, Narragansett Pier, $258,647. Noted Oct. 13.

N. Y., Brooklyn—E. Riegelmann, boro pres. Boro Hall, grading and curbing Ocean Ave., etc., to Alcatraz Asphalt Co., 407 Hamilton Ave., $26,571; Ocean Ave., etc., to Borough Asphalt Co., 1301 Metropolitan Ave., $26,714; grading portion of lot on northeast corner of Winthrop St. and Nostrand Ave., to Grimm Constr. Co., 180 McKinley Ave., $142; repaving 1st Ave., to F. Donovan Trucking & Contg. Co., 614 Union St., $10,226. Noted Sept. 29.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., grading and paving, etc., Rockaway Blvd. from New York Ave. to Nassau Co. line, to A. Paino, 2016 East 14th St., Brooklyn, $268,480. Noted Oct. 13.

N. Y., New York—Park Bd. at office Dept. Parks, Municipal Bldg., improving driveway between 155th and Dyckman Sts., to W. P. McDonald Constr. Co., 17 West 42nd St., $54,925. Noted Oct. 13.

N. J., Kearney—Paving ½ mi. Argyle Pl. between Columbia Ave. and Belleville Turnpike, warrenite bitulithic or asphalt block, to Kesto Constr. Co., 64 State St., Newark, $38,567.

N. J., North Bergen (Weehawken P. O.)—Bd. Freeholders Hudson Co. (Jersey City) paving ½ mi. Daily Town Rd. between Hudson Blvd. and Dan Kelly's Hill, 25 ft., granite block and asphalt, to Lettieri & Belettzo, 253 Wayne St., Jersey City, 97.5% engineers estimate ($29,556).

Pennsylvania—State Hy. Dept., Harrisburg, 15,067 ft. Armstrong Co., to L. H. Hileman Constr. Co., 217 First Natl. Bank Bldg., New Kensington, $144,700; 20,924 ft. Wyoming Co., to Continental Constr. Co., Knickerbocker Bldg., Baltimore, Md., $196,407; 826 ft. Schuykill Co., to A. E. LaRoche, Hamburg, $29,143; 12,687 ft. Indiana Co., to McClure & Bingner, 355 Market St., Johnstown, $155,052; 5,368 ft. Erie Co., to C. H. Fry Constr. Co., Erie, $50,627; 14,832 ft. Cameron Co., to Miller Constr. Co., Punxsutawney, $137,696. Noted Oct. 6.

Pa., Ebensburg—Cambria Co., 7,403 ft. Southmont Blvd. from 8th Ward Johnstown to Mill Creek Rd., to Trevorrow & Crissey Constr. Co., Johnstown, $107,124. Noted Oct. 6.

Pa., Pittsburgh — Grading, regrading, paving and repaving 215.12 ft. Blvd. of allies, from Shingess to Gist Sts., asphalt, to T. Cronin Co., South 18th St., $210,540.

W. Va., Clarksburg—Paving South Chestnut St., vitr. brick, to T. Pietro, Morgantown, $33,500.

W. Va., Moundsville—J. E. Chase, clk. Marshall Co., 1½ mi. Sallie Arnold Ridge Rd., to Stringer & Springer, Wheeling, $28,960. Noted Sept. 22.

W. Va., New Martinsville — Wetzel Co. grading 3 mi. New Martinsville-Wileyville Rd., to Keeley Constr. Co., Clarksburg, $0.66 per yd. Noted Sept. 29.

W. Va., Webster Springs—Webster Co. grading 8.2 mi. Webster Springs-Diana Rd., to Queen Constr. Co., Covington, Va., $139,910. Noted Sept. 22.

N. C., Charlotte—Dilworth Building Co. paving 15 blocks Tremont Ave., Lyndhurst, Springdale and other streets, asphalt, to Simmons Constr. Co., Charlotte, $44,000.

Fla., Moore Haven—Paving 3 mi. road, to E. Kean, Moore Haven, 81,127 cu.yd. earth, $0.16 per cu.yd., and 9,026 cu.yd. rock, $2.35, etc., total $33,680.

La., Harrisonburg—Police Jury of Catahoula Parish, gravel surfacing 11 mi. Harrisonburg-Leesville Highway, 16 mi. Harrisonburg-Jena Highway, 13 mi. Harrisonburg-Winnsboro Highway, 18 mi. Harrisonburg-Columbia Highway, 19 mi. Winnsboro-Clayton Highway, to Smith Bros., Alexandria, $690,000. Noted Sept. 22.

Kentucky—State Hy. Comn., Frankfort, shaping and waterbound macadam surfacing 11 mi. Brooksville-Newport Rd., 10 ft., Bracken Co., to Godfrey & Miller, Brooksville, $60,114; 4.5 mi. Brooksville-Maysville Rd., 14 ft., Bracken Co., to Miller & Connelly, Brooksville, $47,110. Noted Sept. 22 and Oct. 13.

O., Canton—Stark Co. grading and paving 0.9 mi. Canton-Canal Dover Rd. 70, Sect. 2-C, 8,792 sq.yd. vitr. brick, 9,506 lin. ft. concrete curbing and 12,151 cu.yd. earth excav., etc., to Culbertson & Casper, 806 3d St., S.W., $43,368; 0.93 mi. Navarre-Berlin Rd., 79 Sect. F. Wilmot, 8,799 sq.yd. vitr. brick, 9,869 lin.ft. concrete curbing and 8,308 cu.yd. earth excav., to G. W. Hadley, Canton, $40,116.

O., Cleveland—Cuyahoga Co. grading, curbing and paving Lloyd Rd., 6,630 sq. yd. vitr. brick, 3,820 cu. yd. earth excav., 1,170 cu. yd. 6 in. concrete base, etc., to Barber-Forten Co., Warren, $33,750.

O., Cleveland Heights (Warrensville, P. O.)—Paving Coventry Rd., 5,650 lin.ft. stone curbing, 1,500 cu.yd. earth excav., 4,920 sq.yd. waterbound macadam and 70,000 sq.ft. 6 in. concrete base, to Cleveland-Trinidad Paving Co., The Arcade, Cleveland, $42,251.

O., Lakewood (Cleveland, P. O.)—Asphalt paving Lakeland Ave., to Cleveland-Trinidad Paving Co., The Arcade, Cleveland, $31,458; Parkwood and Chesterland Aves., also Richland Ave., to Highway Constr. Co., 903 Lorain Co. Bank Bldg., Elyria, $55,735 and $32,229 respectively. Noted Oct. 13

Ill., Joliet—Paving Buell Ave., asphalt on concrete, to J. V. McCarthy, 220½ Main St., Davenport, Ia., $33,627. Noted Oct. 13.

Ia., Clinton—Clinton Co. following contracts, grading 16.66 mi. Primary Rd. Project 125, from Cedar Co. line east toward De Witt, to F. J. McCaughey, Chicago, 78,684 cu.yd. excav., at $0.274 per cu.yd., McAndrew & Hannahs, Keokuk, 65,649 cu.yd., $0.27.

Ia., Le Mars—Plymouth Co., following contracts grading 13.21 mi. Primary Rd. Project 74, from Woodbury Co. line northeast through Hinton, and from here, north to Sioux Co. Line to G. W. Condon, 510 Farnam Bldg., Omaha, Neb., 107,323 cu.yd. excav., at $0.154 cu.yd.; W. R. Shipman, Sioux City, 66,958 cu.yd., $0.18. Noted Sept. 29.

Kan., Lawrence—Douglas Co. surfacing various streets, vitr. brick and asphalt on concrete to Cook & Stucker, Ottawa, $123,391.

Kan., Minneapolis — Paving, grading, curbing and guttering various streets. $30,000. Work will be done by day labor. L. W. Rexroad, Minneapolis, engr. in charge. Noted Sept. 29.

Kan., Troy—Doniphan Co. grading and surfacing Federal Aid Project 87, bituminous macadam, to E. Fuler, Troy, $29,999. Noted Sept. 8.

Missouri—State Hy. Dept. at div. office Lancaster, 6.09 mi. road from Lancaster eastward and southward, State Aid Project 20.48, Schuyler Co., to Co. Cox Bros., Dike, Ia., $25,006. Noted Sept. 29.

Missouri—State Hy. Dept., Jefferson City, 4.09 mi. road from Urbana southward, State Aid Project 20.84, Dallas Co., to C. F. Johnson & Son, Buffalo, $11,122; 7.2 mi., State Aid Project 20.83, Laclede Co., to Case & Killian, Marshfield, $23,386; 3.02 mi. road from Sarcoxie westward, State Aid Project 20.89, Jasper Co., 8,061 cu. yd. excav., 122.8 cu.yd. concrete masonry, to M. E. Gillioz, Monett, $7,432; 2.38 mi. road from Paris westward, State Aid Project 20.86, Monroe Co., 15,260 cu. yd. excav., 57.6 cu. yd. concrete masonry, to H. Washam, Brookfield, $11,208; 1.53 mi. road from Paris southward, State Aid Project 20.85, Monroe Co., 9,737 cu. yd. excav., 55.8 cu. yd. concrete masonry, to J. H. Hartman, R. F. D. 7, St. Joseph, $5,533; 5.76 mi. road from Hartville southward, State Aid Project 20.73, Wright Co., 22,999 cu. yd. excav., 1,145.8 cu.yd. concrete masonry, to Alexander & Baity, Springfield, $21,643; 2.47 mi. road from Luray westward, State Aid Project 20.5, Clark Co., 27,393 cu. yd. excav., 141.8 cu. yd. concrete masonry, to M. H. and G. H. Turner, Wyaconda, $12,552; 7.2 mi. road from Osage Co. line northward, State Aid Project 20.98, Maries Co., 29,942 cu. yd. excav., 65.9 cu. yd. concrete masonry, to T. J. Terry, Vienna, $14,976; 3.65 mi. Delta Special State Rd., State Aid Project 20.82, Cape Girardeau Co., 10,576 cu. yd. excav., 21,982 cu. yd. borrow, 66.6 cu.yd. concrete masonry, etc., also 5.49 mi. road from Phelps Co. line northward, State Aid Project 20.99, Maries Co., 26,047 cu. yd. excav., 127.4 cu. yd. concrete masonry, to Allhand & Davis, Joplin, $14,657 and $20,243 respectively. Noted Sept. 15.

Mo., Bloomfield—Stoddard Co. grading and gravel surfacing, 30 mi. road, to Walb Constr. Co., La Grange, Ind., $211,128.

Mo., Mexico—Improving Liberty St., bituminous macadam on concrete, to B. A. Powell, Mexico, $27,000. Noted Sept. 22.

Mo., St. Joseph—Curbing, guttering and surfacing Frederick Ave., asphalt on concrete, to Land Constr. Co., Ballinger Bldg., $96,100. Noted Sept. 29.

Tex., Canton—Van Zandt Co. grading and gravel surfacing 29.6 mi. Dixie Highway, State Highway 15, to T. A. Griffin, 411 North Texas Bldg., Dallas, $85,968. Noted Oct. 6.

Tex., Crockett—Houston Co. grading and sand clay surfacing 13.73 mi. State Highway 21, to Smith Bros., Crockett, $125,596. Subject to approval of State Hy. Dept. Noted Oct. 6.

Tex., Ft. Worth — Tarrant Co. paving 13.36 mi. Ft. Worth-Hicks Rd., 2 in. uvalde rock asphalt, to General Constr. Co. 403 Cotton Exch. Bldg., $218,057; 6.84 mi. Highway 1, Kuteman Cut-Off Rd., 2 in. uvalde rock asphalt, to H. K. McCollum Constr. Co., 224 Texas State Bank Bldg., $113,325. Noted Sept. 22.

Col., Boulder—Paving Dist. 13, asphalt, to Strang-McGuire Co., Salt Lake City, Utah, $34,666.

Cal., Los Angeles — Bd. Supervs. Los Angeles Co., paving, curbing, guttering and building culverts in 7 streets, Rd. Dist. 198, to W. D. McCray, 424 Amer. Bank Bldg., $74,400. Noted Oct. 13.

Que., Montreal—To F. Lapau, 601 Locordaire St., paving St. Germaine St., $6,623, St. Hubert St., $3,390; Rondon, Colier & Cie, 3227 Christophe Colombe St., Kelly St., $9,551, Michaud St., $4,071; Duranceau & Duranceau, 162 Hamilton St., Wurtole St., $5,189, Monkland St., $1,600, St. Hubert St., $7,425. Noted Sept. 29.

Industrial Works

PROPOSED WORK

Mass., Boston—O'Brien Bros., West 4th St., South Boston, having plans prepared by Dow, Harlow & Kimball, archts., 101 Tremont St., South Boston, 4 story, 51 x 170 ft. brick factory. $125,000.

N. Y., Buffalo—See "Miscellaneous."

N. J., Trenton—C. Harrison, Jr., 923 Carteret Ave., plans 4 story, 60 x 80 ft. brick and concrete factory, Barlow and Bapton Sts. $125,000.

Pa., Connellsville—Rainbow Lines, Inc., having revised plans prepared by H. C. Frank, archt., Connellsville, and soon receives bids, 2 and 3 story 111 x 178 ft. terminal freight building. $120,000.

D. C., Wash.—Knickerbocker Ice Co., 1480 Bway., New York, opens bids about Oct. 25, for ice plant, here. $250,000. Private plans. C. L. Weir, engr.

W. Va., Point Pleasant — Auto-Motor Corp. opens bids about Nov. 15, 4 story factory, 3 units. $250,000. Architect not announced.

N. C., Pilot Mountain—City votes Nov. 3, on $40,000 bonds for power plant. J. F. Kirkman, mayor.

O., Cleveland—P. R. Morren Fdry., 4260 East 98th St., had plans prepared 1 story, 40 x 102 ft. and 16 x 70 ft., brick and steel foundry and pattern shop, plain foundation, 10010 Dunlap Ave. $40,000. Private plans.

O., Cleveland—Richmond Bros., 1600 East 55th St., had plans prepared by Christian-Schwartzenberg & Gaeda, archts., 1900 Euclid Ave., 1 story, 66 x 90 ft., brick and steel garage, plain foundation, 1600 East 55th St. $40,000.

Ill., Pekin—Conaghan Motor Co. having plans prepared by J. Zimmer, archt., 217 Court St., 1 story, garage, brick, stone and steel.

Wis., Fox Lake—R. F. Clark, eBaver Dam, plans 2 story, 60 x 85 ft., rein.-con.,

Industrial Works (Continued)

steel and brick cannery on Main St., here. $45,000. Architect not selected.

Wis., Kaukauna—Valley Pulp Co., having plans prepared by O'Keefe & Orbison, archts. and engrs., College Ave., Appleton, for 30 ton pulp mill, brick, concrete and steel, plain foundation.

Wis., Madison—The Purcell Wischau Co., 219 East Washington Ave., opens bids about Oct. 31, 2 story, 117 x 132 ft., rein.-con., steel and brick garage on West Gilman St. $125,000. Private plans.

Wis., Milwaukee—Stearns Sales Agency, 156 Farwell Ave., plans 2 story, 50 x 150 ft., brick and concrete garage, plain foundation, Farewell Ave. $70,000. Architect not selected.

Wis., Soldiers Grove—Peterson Estate Co. having plans prepared by E. E. Dillon, engr., Washington Bldg., Madison, for 50 x 190 ft. addition to electric power plant. $150,000. C. Peterson, mgr.

Mo., Carthage—Carthage Superior Spring Bed Mfg. Co. plans 2 story, brick and steel factory. $40,000. Architect not selected.

Mo., St. Joseph—Grant Motor Co., 9th and Felix Sts., having plans prepared 1 story, 120 x 140 ft., brick and steel garage, 10th and Francis Sts. $55,000. Architects name withheld.

Mo., St. Louis—Chester Iron & Fdry. Co., c/o A. J. Schaelich, pres., 7800 Vulcan St., having plans prepared by L. Haeger, archt., 3834 Utah St., 1 story, 45 x 117 ft., brick and steel foundry. $40,000.

Mo., St. Louis—B. Gustavson, 1538 Tower Grove, having plans prepared by Wedmeyer & Nelson, archts., Wainwright Bldg., 1 story, 41 x 175 ft., rein.-con. and brick garage. $45,000.

Tex., Edinburg—See "Waterworks."

Okla., Marlow—City having plans prepared by V. V. Long & Co., engrs., Colcord Bldg., Oklahoma City, addition to power plant. $55,000.

Col., Denver—Denver Auto Hotel Co., Central Savings Bank Bldg., having plans prepared by W. N. Bowman, archt., Central Savings Bank Bldg., 6 story, 100 x 125 ft. brick, steel and terra cotta garage, Lawrence St. between 14th and 15th Sts. $150,000.

BIDS DESIRED

Mass., Boston—Oct. 27 by McNaughton & Cleverdon, archts., 19 Congress St., 1 story 300 x 400 ft. machine shop, brick and concrete, near Locust St., for Meisel Press Mfg. Co., 944 Dorchester Ave. $300,000.

Pa., Pittsburgh—Shanahan Transfer Co., 5th Ave., receiving bids 6 story, rein.-con. and steel storage, Penn and Braddock Sts. $80,000. T. E. Cornelius, Magee Bldg., archt.

Mont., Bozeman—See "Buildings."

Mont., Missoula—See "Buildings."

O., Cleveland—Pavelka Bros., 2978 East 37th St., receiving bids 1 story, 57 x 65 ft., brick and steel factory addition, plain foundation, East 37th St. and Bway. $40,000. Anders & Reimers, Erie Bldg., archts.

Mo., Salisbury—Oct. 26, by Salisbury Sanitary Ice & Supply Co., 2 story, brick and steel plant. $50,000. Black & Co., Salisbury, archt.

Mo., St. Louis—Oct. 25, by A. S. Alschuler, archt., 28 East Jackson Blvd., Chicago, 199 x 331 ft. brick and steel garage, 15th and Walnut Sts., here, for S. Simon, c/o Williams & Bland, 717 Chestnut St. $100,000.

BIDS RECEIVED

O., Cleveland—Steam boiler plant for new public hall (now under construction), from Chappel-Warren Co., St. Clair Ave., $81,700; Smith & Obey, Carnegie Ave., $87,400.

CONTRACTS AWARDED

Mass., Somerville (Boston P. O.)—M. Kingston, c/o B. Brown, engr., 88 Broad St., Boston, 3-story, brick factory, here, $100,000. Work will be done by day labor.

Mass., South Boston—(Boston, P. O.) Berger Mfg. Co., 450 Bway, 2 story, 110 x 240 ft., storehouse and office building, brick, Dorchester St., to Joslin & Landry, 161 Devonshire St., Boston, $160,000.

R. I., Woonsocket—Regina Auto Sales Co., Front St., 2 story, 60 x 80 ft., brick and steel garage and repair shop, plain foundation, Front St., to J. F. Fleurant & Son, Rathbun St., $40,000.

N. Y., Eastwood—Lamson Co., 196 Walker St., Lowell, Mass., tube and carrier factory, here, to Aberthaw Constr. Co., 27 School St., Boston, $600,000. Noted Aug. 25.

N. Y., New York—See "Buildings."

N. Y., Ozone Park (Jamaica P. O.)—Kops Bros., 120 East 16th St., New York, rein.-con. and steel factory, concrete pile foundation, here, to Turner Constr. Co., 244 Madison Ave., New York, $100,000.

Pa., Phila.—Brownhill & Kramer, c/0 H. A. Brownhill, 406 Memphis St., 3 story, 80 x 80 ft. rein.-con. and steel factory, plain foundation, to W. Steele & Sons, 1600 Arch St., $60,000.

Pa., Phila—Queens Brooks Co., c/o J. S. Queens, American and Diamond Sts., 5 story, 55 x 200 ft. terra cotta and brick factory, 5th and Huntington Park Aves., to H. P. Schneider, 3717 York Rd., $150,000.

Pa., Pittsburgh—A. Schmitz, Penn Ave., 1 story, concrete, brick and steel garage, plain foundation, Penn Ave., to Dresser-Minton, The Arcade, Cleveland, O., $50,000.

Pa., Pittsburgh—Standard Underground Cable Co., Westinghouse Bldg., brick and steel addition to plant between 16th and 17th Sts., general to J. W. Cowper Co., Fidelity Bldg., Buffalo, N. Y., 1,300 ton steel, to McClintic-Marshall Co., Oliver Bldg. Total $500,000.

O., Cleveland—D. N. Goodman, 1327 East Blvd., 1 story, 47 x 97 ft., brick and steel garage and repair shop, plain foundation, East 14th St. and Webster Ave., to J. Baskin, 9215 Parkgate Ave., $40,000.

O., Cleveland—Tenfel Bros., 3317 West 65th St., 1 story, 40 x 81 ft., brick and steel garage, plain foundation, to Forschner Co., East 10th St. and St. Clair Ave., $40,000. Noted Nov. 25.

Mich., Detroit—Beaubien Ice & Coal Co., 4205 West Jefferson Ave., 1 story, brick, steel and concrete plant, plain foundation, Baker and Porter Sts., to Pine & Munnecke, Marquette Bldg., to exceed $40,000.

Ill., Chicago—Hinckley & Schmitt, 418 West Ontario St., 2 story, 100 x 200 ft., brick and timber factory addition, to H. F. Friestedt Co., 327 South LaSalle St., cost between $75,000 and $100,000. Noted Aug. 25.

Ill., Chicago—S. Porcaro, 2544 West Superior St., additional story to 72 x 120 ft. garage at 2435 Division St., to H. Kaplan Co., 2607 West Walton St. $40,000.

Ill., Zion—Zion Institutions and Industries, Administration Bldg., 1 story, 100 x 140 ft. brick and steel garage, by day labor under supervision R. Steel, mgr. $50,000. Noted Oct. 13.

Wis., Manitowoc—Brewer Mfg. Co., Meadow Lane, 1 story, 60 x 130 ft., steel and brick factory, to W. Yeman, Manitowoc, $50,000.

Wis., Milwaukee—Hanson & Phillips, Kinnickinnic and Logan Aves., 1 story, 100 x 110 ft. concrete garage, plain foundation, Kinnickinnic Ave.; to T. Burazin, 234 Clement Ave., $40,000. Noted Oct. 6.

Ia., Davenport—Crane Co., 600 East 4th St., 3 story brick and steel factory, to Priester Constr. Co., Putman Bldg., $85,000. Noted Jan. 13.

Ia., Des Moines—Mennig-McCord, East 26th St. and Dean Ave., 3 story, 42 x 180 ft. brick and steel factory, to A. H. Newmann & Co., Hubbell Bldg., $55,000.

Mo., Kansas City—Artzcraft Broom Co., 1423 Kansas Ave., 2 story, 65 x 127 ft., brick and steel factory, 14th St. and Kansas Ave., to A. E. Maderieco Produce Exch. Bldg., $75,000. Noted Oct. 13.

Mo., St. Louis—Sieloff Packing Co., 4339 Natl. Bridge Rd., 2 story, 120 x 120 ft., rein.-con. and brick storage plant, Sacramento and Newstead Sts., to H. O. Hirsch & Co., Wainwright Bldg., $75,000. Noted June 30.

Mo., St. Louis—St. Louis & San Francisco Ry., Frisco Bldg., 1 story, 40 x 130 ft. brick and steel machine shop, 3865 Cheateau Ave., to Globe Constr. Co., Chemical Bldg., $55,000. Noted Oct. 6.

Que., Montreal—Provincial Government, Quebec, converting jail on Craig and Delormier Aves. into warehouse, also 5 story, 128 x 145 ft. rein.-con. wing, to O. Archambault, 610 Parc Lafontaine, $245,000, plumbing and heating, to Conroy Bros., Centre St., $28,400.

Ont., Kingston—Queens University, 207 William St., and Kingston General Hospital, Stuart St., concrete, brick and steel heating plant, to P. McCoy, 37 Beverley St., $125,000. Noted Sept. 15.

Buildings

PROPOSED WORK

Mass., Boston — High School — Having plans prepared by C. H. Walker, archt., 120 Boylston St., 2 story, 70 x 220 ft., brick, Poplar St. $175,000.

Mass., West Roxbury (Boston P. O.) —School—School Comn., 1009 City Hall Annex, having plans prepared by Wells & Dana, archts., 384 Boylston St., Boston, 3 story, brick and concrete addition, Oak Sq. $250,000.

Conn., Meriden—Hospital—C. S. Palmer, archt., 114 Whitney Ave., New Haven, opens bids about Oct. 31, 4 story, 50 x 150 ft. brick, concrete and steel addition, plain foundation, at City Hospital, Cook Ave. $350,000. Noted Aug. 18.

N. Y., Brooklyn — Apartment — Acunto Constr. Co., c/o Shampan & Shampan, archts. and engrs., 50 Court St., having plans prepared 4 story, brick, steel and stone, concrete pile foundation, 20th Ave. $200,000.

N. Y., Buffalo—Store and Office—S. G. Hurst Business School, Brisbane Bldg., plans 6 story, modern fireproof construction, on 110 x 183 ft. site on Huron St. Cost to exceed $300,000.

N. Y., New Rochelle—Professional—Professional Office Bldg. Corp., 175 Centre Ave., soon lets contract 4 story, brick, steel and stone, plain foundation, Huguenot St. $200,000. Townsed, Steinle & Haskell, 8 West 40th St., New York, archits. and engrs.

N. Y., New York—Apartment—Shamokin Realty Corp., 609 West 48th St., having plans prepared by H. B. Mulliken, archt. and engr., 609 West 48th St., 15 story, 100 x 105 ft., brick, steel and stone, concrete pile foundation, 7th Ave. and 57th St., $1,300,000.

N. Y., New York—Apartment—Wadnick Bldg. Corp c/o Rouse & Goldstone, archts. and engrs., 512 5th Ave., had plans prepared 5 story, brick, steel and stone, pile foundation, 603 West 192d St. $200,000.

N. Y., New York—Apartment—Zedge Realty Co., c/o G. F. Pelham, archt. and engr., 200 West 72nd St., 5 story, brick, steel and stone, concrete pile foundation, Bway. and Academy St., $15,000. Work will be done by separate contracts.

N. Y., New York—Community House—Church of All Nations, c/o Buchman & Kahn, archts. and engrs., 56 West 45th St., soon lets contract 4 story, brick, steel and stone, plain foundation, 1st St. and 2d Ave.

N. Y., New York—Hotel—Commonwealth Hotel Constr. Co., 18 East 41st St., had plans prepared by Starrett & Van Vleck, archts., 8 West 40th St., and King & Campbell, archts., 36 West 40th St., 30 story, brick, steel and stone, concrete pile foundation, 7th Ave., Bway., 55th and 56th Sts. $10,000,000.

N. Y., New York—Theatre—Coleman Bros. having plans prepared by E. De Rosa, archt. and engr., 110 West 40th St., brick, steel and stone, plain foundation, Burnside Ave. between Jerome and Walton Aves., $600,000.

N. Y., New York—Theatre—Ogden Amusement Co., c/o E. De Rosa, archt. and engr., 110 West 40th St., brick, steel and stone, plain foundation, Ogden Ave., $400,000.

D. C., Wash.—Memorial—George Washington Memorial Society and Dept. Pub. Buildings and Grounds soon receive bids memorial to World War Veterans. Cost millions. Col. Sherrill, engr. in charge.

N. C., High Point—Bank and Office—Commercial Natl. Bank opens bids about Jan. 1, 10 story, 50 x 115 ft. $1,000,000. C. G. Hartman, Greensboro, archt.

N. C., Laurinburg — Schools — Having plans prepared by W. G. Rogers, archt., 502 Trust Bldg., Charlotte, 12 room high school and 8 room addition to grade school, brick and stone. $150,000.

O., Cleveland—Church and School—Our Lady of Peace Church, c/o J. F. Cummin, pastor, 12101 Woodland Ave., had plans prepared by E. T. P. Graham, archt., 20 Beacon St., Boston, 3 story, 60 x 145 ft., brick, steel and concrete, plain foundation, East 126th St. and Buckinham Ave. $150,000.

Mich., Detroit—Clubhouse—G. D. Mason Co., archt., 508 Griswold St., opens bids about Oct. 25, 3 story, 80 x 350 ft. rein.-con. and brick, wood pile foundation, Belle Isle, for Detroit Yacht Club, Belle Isle. $500,000. Noted Aug. 25.

Buildings (Continued)

Ill., Champaign—Apartment and Store—H. Nash, Trevett Mattis Bank, will soon take bids 3 story, 140 x 140 ft. $150,000. G. Ramey, Roberson Bldg., archt.

Ill., Chicago—Restaurant—R. G. Schmid & Co., archts., 154 West Randolph St., soon receive bids 2 story, 100 x 100 ft., concrete on Sheridan Rd. and Wilson Ave., for Garibaldi & Cuneo, 1 West South Water St. $150,000.

Ill., Quincy—Theatre and Office—Pinkelman & Cory, Gem Theatre, having plans prepared by D. S. Klafter, archt., 64 West Randolph St., Chicago, 8 story, 100 x 195 ft., brick and steel, Washington Sq. $1,000,000.

Wis., Milwaukee — Church — Kirchoff & Rose, archts., 221 Grand Ave., opens bids about Oct. 28, 50 x 120 ft., brick and steel, plain foundation, 54th St., for Mt. Olive Lutheran Congregation, 529 Sherman St. $150,000. Noted April 21.

Wis., Whitewater—Normal School—Bd. Normal School Regents, c/o W. Kittle, secy., Capitol Bldg., Madison, having preliminary plans prepared by A. Peabody, archt., Capitol Bldg., Madison, for 5 story, 60 x 250 ft., brick, rein.-con. and steel, here. $250,000.

Minn., Minneapolis — Store and Office — Bereoles & Brachos, Billings, Mont., having plans prepared by Croft & Boerner, archts., 1006 Marquette Ave., 4 story, 50 x 165 ft., rein.-con., steel brick and tile, 8th St. and Hennepin Ave., here. $200,000.

Minn., St. Paul—School—Dept. Educ. having plans prepared by C. A. Hausler, city archt., 3 story, 70 x 260 ft., rein.-con., brick, tile and stone, Garfield and Western Aves. $350,000. L. S. Ferguson, comrs.

Kan., Parsons — Hospital — Missouri, Kansas & Texas R.R. Hospital Bd., having plans prepared by Robertson & Griesenbeck, archts., South West Life Bldg., Dallas, for hospital between Clark, Stevens, 30th and 31st Sts. $200,000.

Kan., Wellington—Auditorium—City having plans prepared by C. Boller & Bros., archts., Ridge Bldg., Kansas City, 2 story, 120 x 190 ft., brick, stone and rein.-con. $200,000. O. J. Hackney, clk.

Ont., Ottawa—High School—Ottawa Collegiate Bd., 7 Monkland Ave., having plans prepared by J. A. Ewart, archt., Jackson Bldg., Bank St., brick and steel, Crysler Ave. $750,000.

BIDS DESIRED

N. Y., New York—School—Oct. 24, President Bd. Educ., 500 Park Ave., P. S. 58, 4 story, 90 x 105 ft. brick, steel and stone, plain foundation, East 176th St. and Washington Ave., $500,000. C. B. J. Snyder, Municipal Bldg., archt. and engr. Noted Sept. 1.

N. Y., Onondago Valley—School—Oct. 27, by R. T. Anderson, pres. Bd. Educ., 2 story, rein.-con. and steel. $300,000. M. L. King, Snow Bldg., Syracuse, archt. and engr.

N. J., Palmyra—High School—Oct. 26, by School Bd., 2 story, 124 x 154 ft., cut stone and brick, plain foundation, 5th St. and Delaware Ave. Cost to exceed $150,000. B. R. Stevens, 1737 Filbert St., Phila., archt.

N. J., Teaneck (Englewood P. O.)—School—Nov. 1, by Bd. Educ., alterations and additions to School 1, southerly side, Oakdene Ave. C. V. R. Bogert, 167 Main St., Hackensack, archt.; adv. this issue.

O., Cleveland—Store and Apartment—L. Cahn, 10615 Grantwood Ave., receiving bids 3 story, 69 x 85 ft., brick and steel, plain foundation, Cedar Rd. and Edgehill Ave. $150,000. A. F. Janowitz, Permanent Bldg., archt.

O., Elyria—School—Oct. 24, by Bd. Educ., 2 story, brick, steel and concrete addition, plain foundation. $25,000. R. S. Silsby, Eylria, archt.

Ind., Hammond—Apartment Hotel—H. L. Newhouse, archt., 4630 Prairie Ave., Chicago, taking bids 4 story, 35 x 118 ft., rein.-con., brick and steel, for Merchants Impvt. Assn., Hammond. $150,000.

Ind., Michigan City—Theater—H. L. Newhouse, archt., 4630 Prairie Ave., Chicago, taking bids 1 story, 65 x 165 ft. rein.-con., brick and terra cotta, for Wallerstein Bros. $200,000. Noted March 31.

Mich., Bridgman—School—Nov. 7, by E. Myers, secy. Bd. Educ. 2 story, rein.-con. and brick, plain foundation. $150,000. R. A. LeRoy, Kalamazoo, archt.

Ill., Chicago — Apartment — Holabird & Roche, archts., 104 South Michigan St., receiving bids 3 story, 89 x 125 ft., fireproof construction, 1616 Jonquil Terrace. $150,000. Owner's name withheld.

Ill., Chicago—Apartment—H. J. Leidberg, archt., 154 West Randolph St., receiving bids 3 story, 100 x 173 ft., fireproof construction, Greenleaf Ave. and Sheridan Rd. $175,000. Owners name withheld.

Ill., Chicago — Apartment — Thorne & Brennan, c/o W. Thorne, 10 South La Salle St., taking bids 3 story, 100 x 150 ft., brick and concrete, Kenmore and Glenlake Aves. $160,000. R. F. France, 155 North Clark St., archt. Noted Sept. 22.

Ill., Chicago—Hotel—A. Swanson, c/o T. R. Bishop, archt., 35 South Dearborn St., taking bids 3 story, 84 x 146 ft., rein.-con., steel and brick, on Kenmore and Winthrop Aves. $190,000.

Ill., Chicago—Store—A. S. Alschuler, archt., 28 East Jackson Blvd., receiving bids 4 story, 100 x 132 ft., 63rd and Drexel Aves., for Hartman Furniture Co., 39th St. and Wentworth Ave. $200,000. Noted June 16.

Ill., Chicago—Store and Office—D. S. Klafter, archt., 64 West Randolph St., receiving bids 3 story, 85 x 103 ft., brick and steel on Michigan Ave. and Walton St., for Michigan Walton Bldg. Corp., 110 South Dearborn St. $150,000.

Ill., Chicago — Synagogue — H. L. Newhouse, archt., 4630 Prairie Ave., taking bids, 2 story, 90 x 140 ft., rein.-con. and brick, Homan Ave. and Douglass Blvd., for Congregation Anshel Sholem, c/o architect. $250,000.

Ill., Chicago — Theater — Roosevelt Road Theater, c/o S. Blair, 155 North Clark St., taking bids 2 story, 72 x 125 ft., concrete and steel, granite and terra cotta front, 1731-9 Roosevelt Rd. $150,000. M. L. Bein, 139 North Clark St., archt.

Ill., Martinsville—High School—Oct. 25, by Bd. Educ., c/o J. C. Brydon, secy., 2 story, brick and steel. $150,000. Johnson, Miller & Miller, 105 South 7th St., Terre Haute, Ind., archts. Noted July 2.

Ill., Oak Park—Apartment—A. S. Alschuler, archt., 28 East Jackson Blvd., Chicago, receiving bids 3 story, 107 x 170 ft., concrete and brick on Washington Blvd. and Wisconsin St., for Washington Arms Bldg. Corp. $175,000.

Ill., Oak Park — Apartment — A. S. Alschuler, archt., 28 East Jackson Blvd., receiving bids 3 story, 100 x 150 ft., concrete and brick, Ridgeland Ave. and Washington Blvd., for Ridgeland Arms Bldg. Corp. $175,000.

Ill., Peoria—School—Nov. 5, by Bd. Educ. c/o G. Mitchell, and A. Kiefer, archt., Jefferson Bldg., 2 story, 100 x 150 ft. $175,000.

Ill., Raymond—High School—Oct. 25, by Bd. Educ. and F. J. Klein, archt., 331 Main St., Peoria, 2 story, 80 x 150 ft., rein.-con., brick and stone. $150,000. A. Jones, pres.

Ill., Rockton—High School—Nov. 1, Bd. Educ. and J. C. Lewellyn, archt., 38 South Dearborn St., Chicago, 2 story, 114 x 162 ft., rein.-con., brick and stone $150,000. C. E. Phelps, secy.

Ill., Sterling — School — Oct. 31, by Bd. Educ., 2 story, 100 x 200 ft., brick and stone. $250,000. Ashby-Ashby & Schultz, 1511 West Jackson Blvd., Chicago, archts. Noted May 26.

Wis., Kenosha—Theater, Store and office—W. H. Pruyn, archt., 122 South Michigan Ave., Chicago, receiving bids 3 story, 80 x 150 ft., for Wisconsin Theater Co., 228 Milwaukee Ave. $300,000.

Wis., Marathon—Dormitory and School—H. T. Liebert, archt., 69 Wisconsin St., Milwaukee, receiving bids for materials for 2 story, 80 x 160 ft., brick and tile, plain foundation, for St. Anthony Monastery. Total $150,000. Bids on construction in early spring.

Wis., Wauwatosa—School and Auditorium—Backes & Pfaller, archts., 216 West Water St., Milwaukee, receiving bids 2 story, 94 x 112 ft. and 1 story, 45 x 80 ft. brick and concrete, plain foundation, Blue Mound Rd., for Holy Cross Catholic Congregation. $150,000. Noted Aug. 25.

Kan., Ossawatomie — Hospital — Nov. 8 (change of date) by State c/o J. A. Kimball, Topeka, 2 story, here. $150,000. R. Gamble, 1415 Fillmore St., Topeka, archt. Noted Sept. 29.

Mont., Bozeman—Engineering, etc.—Dec. 20, by State Bd. Trustees, Helena, engineering building, $250,000, engineering shops, $100,000, F. Wilson, Bozeman, archt.; gymnasium, $225,000, biology, $175,000, G. Shanley, Great Falls, archt.; heating plant, building only, $40,000, F. Wilson, Bozeman, archt.; heating plant, $110,000, Pillsbury Co., 1200 2nd Ave., S., Minneapolis, Minn., archts. All at College of Agriculture and Mechanic Arts, here. Noted June 30 and Sept. 15.

Mont., Butte—Metallurgical—Dec. 20, by State Bd. Trustees, Helena, metallurgical building, at State School of Mines, here. $200,000. F. Hammill, Columbia Gardens, archt. Noted June 30.

Mont., Missoula—Library, etc.—Dec. 20, by State Bd. Trustees, Helena, library, $25,000, McIver & Cohagen, 407 Electric Bldg., Billings, archts.; gymnasium, $225,000, G. Carsley, Helena, archt.; forestry building, $100,000, O. Bakke, Gibson Bldg., archt.; dormitory for women, $125,000, dormitory for men, $100,000, Link & Haire, 317 Electric Bldg., Billings, archts.; heating plant, building only, $40,000, O. Bakke & C. J. Forbis, Gibson Bldg., archts.; heating plant, $110,000, Pillsbury Co., 1200 2nd Ave., S., Minneapolis, Minn., archts. All at State University, here. Noted June 30.

Mo., Kansas City—Institute—Oct. 25, by C. A. Smith, archt., Finance Bldg., 2 story, 88 x 100 ft., brick, rein.-con. and terra cotta addition, Grand and Missouri Aves., for Helping Hand Institute, c/o E. T. Brigham, 523 Grand Ave, $150,000.

Mo., Mexico—Hotel—Oct. 25, by B. C. Elliott, archt., 116 Jefferson Ave., 5 story, 71 x 110 ft., rein.-con. and brick addition, for Hoxey Hotel Co. $200,000. Noted Feb. 24.

Tex., Cisco—High School—Oct. 25, by city c/o Mayor, 2 story, brick, rein.-con. and stone. $175,000. Robertson & Griesenbeck, .Southwest Life Bldg., Dallas, archts.

BIDS RECEIVED

Wis., Merrill—High and Grade Schools—Bd., addition to high school from C. G. Torkelsom, Merrill, $172,200; H. J. Selmer Co., McCartney Natl. Bank, Green Bay, $176,937; Hutter Constr. Co., Western Ave., Fond du Lac, $179,837; new grade school, from W. H. Farley, New Lisbon, $60,000; Graham & Babcock, $60,500; H. J. Selmer Co., McCartney Natl. Bank, Green Bay, $61,473. Both brick and concrete, plain foundations. Noted Sept. 29.

CONTRACTS AWARDED

Mass., Dorchester—Synagogue—Congregation Agudath Israel will build 3 story, 58 x 101 ft. brick, Woodrow St. $160,000. Work wil be done by day labor.

Mass., Hull—Fire and Police Station—For 3 story, 52 x 120 ft. and 1 story, 60 x 88 ft., brick, stone and steel, Atlantic Ave., to S. C. Sperry Co., Main St., Cambridge, $164,274. Noted Oct. 6.

Mass., Lawrence — Temple — Lawrence Masonic Assn., 3 story, brick, steel and concrete, plain foundation, Jackson St., to E. A. Peabody & Son, Bay State Bldg., $150,000.

Mass., Sharon—School—For 2 story, 40 x 80 ft. and 60 x 100 ft. brick, Main St., to J. A. Munroe, North Atleboro, $150,000.

Mass., Springfield—High School—Comrs. City Property, Administration Bldg., 4 story, 125 x 150 ft., brick and steel, plain foundation, State St., to F. T. Ley Co., Inc., State and Main Sts. $461,750. Noted Sept. 22.

Mass., Wakefield—High School—Bd. Educ. 3 story, 50 x 150 ft., and 86 x 208 ft. brick on Main St., to C. H. Cunningham & Sons, Lynn, $300,000.

R. I., Howard—Hospital—Penal & Charitable Comn., State House, Providence, 1 and 2 story, brick and timber messhall, kitchen, chapel, connecting corridors, here, to Mahoney & Tucker, Weybosset St., Providence, $132,227.

R. I., Providence—High School—For 3 story, 300 ft. front, with 2 wings, 180 ft. deep, concrete, plain foundation, Pond St., to C. S. Cunningham, Little Bldg., Boston, $569,000; heating and ventilating, to Grinnell Co., 275 West Exchange St., $50,000; plumbing, to E. J. Sullivan, 87 Brook St., $25,375; electrical work, to W. and J. Electric Co., 385 Westminister St., $24,340. Noted Sept. 22.

Conn., Waterbury — Parish House — St. John's Protestant Episcopal Parish, Church and West Main Sts., 2 story, 50 x 130 ft. stone, terracotta, brick and steel, Church St., to Tracy Bros. Co., 52 Benedict St. $150,000. Noted Sept. 15.

N. Y., Brooklyn—Apartments—Pluckets Realty Co., 1199 Eastern Parkway, two 4 story, 75 x 115 ft., brick, steel and stone, concrete pile foundations, Union St., $150,000 each. Work will be done by day labor. Cohn Bros., 361 Stone Ave., archts. and engrs.

N. Y., New York—Apartment—Hillside Building Corp., c/o G. F. Pelham, archt. and engr., 200 West 72nd St., 5 story, brick, steel and stone, concrete pile foundation, Nagle Ave. $250,000. Work will be done by day labor.

N. Y., New York—Apartment—Occidental Holding Co., c/o L. A. Abramson, archt.

Buildings (Continued)

and engr., 48 West 46th St., 6 story, brick, steel and stone, concrete pile foundation, 144 Claremont Ave. $200,000. Work will be done by day labor

N. Y., New York—Clubhouse—Society of Professional Automobile Engineers, Bway. and 67th St., 5 story, 75 x 100 ft., brick, steel and stone, 153 West 64th St., to G. Colon & Co., 81 East 125th St. $300,000. Noted May 12.

N. Y., New York—Store, etc.—Ludwig Bauman & Co., 8th Ave. and 35th St., 12 story, brick, steel and stone, store, office and warehouse, plain foundation, 8th Ave. between 35th and 36th Sts., to G. R. Davis & Co., 30 East 42d St.

D. C., Wash.—Store and Office—G. N. Roy, 1147 Connecticut Ave., N. W., 6 story, brick and rein.-con., to C. H. Tompkins, 1612 Pond Rd., N. W., $200,000. Noted Dec. 30.

N. C., Asheville—School—Asheville Normal Associated School, 4 story, 99 x 168 ft., brick, to Southern Ferro Concrete Co., Trust Co. of Georgia Bldg., Atlanta, Ga. $170,000.

N. C., Gastonia — Church — Main St. Methodist Church, brick and stone, to C. C. Spencer, Gastonia, $200,000.

N. C., Statesville — Hotel — Statesville Hotel Co., 5 story, to J. H. Gardner, Charlotte, $150,000. Noted April 14.

Fla., Orlando—Hotel—Orange Hotel Co. general contract 11 story, 100 x 105 ft., Orange and Oak Sts., to C. E. Hillyer, Lee St., Jacksonville, $550,000, cost plus percentage basis; steel, to Virginia Bridge & Iron Co., Roanoke, Va., $300,000. Noted July 28.

Fla., Tallahassee — College — Florida State College for Women, 3 story, concrete and brick, dormitory, science hall and addition to dining hall, to Southern Ferro Concrete Co., Trust Co. of Georgia Bldg., Atlanta, Ga., $168,760.

Ky., Louisville—Market—Louisville Sanitary Market Co., 1 story, 96 x 236 ft., concrete, brick and steel, 421-25 South St., to L. R. Figg Co., 2022 Rowan St., $187,182.

O., Dayton—Office—H. A. Toulmin, Jr., Schwind Bldg., 6 story, 40 x 160 ft., rein.-con., brick and terra cotta, 3rd and Wilkinson Sts., to J. E. Lowes, Schwind Bldg., $175,000.

O., Hiram—Dormitory and Science—Trustees Hiram College, 3 story, 44 x 102 ft., and 40 x 108 ft., brick, steel and concrete, plain foundation, to Parish Bros., Wick Ave., Youngstown, $200,000. Noted Sept. 29.

Mich., Detroit — Office — M. J. Dennedy, 1610 Longfellow Ave., 8 story, rein.-con., brick, steel and stone, plain foundation, Madison Ave., to Bryant & Detwiler, 2336 Dime Bank Bldg., $200,000.

Mich., Detroit—Office and Transportation —Street Ry. Comn., Murphy Bldg., 3 story, 60 x 218 ft., rein.-con., brick and steel, plain foundation, St. Jean and Shoemaker Aves., to Corrick Bros., Owen Bldg., $178,474. Noted Sept. 22.

Mich., Detroit — School — St. Augustine Parish, Davison and Justine Sts., 2 story, 156 x 170 ft., rein.-con., brick and steel, plain foundation, Davison and Justine Sts., to J. Sullivan, 1226 Campbell Ave. $175,000. Noted Sept. 22.

Mich., Detroit—Temple—Masonic Temple Assn., Lafayette Blvd., 4 and 6 story, 190 x 350 ft., rein.-con., brick, steel and stone, plain foundation, Temple Ave., masonry for 1st story, to H. G. Christman Co., 315 Stevens Bldg., structural steel frame, to Russel Wheel & Fdry. Co., Chene St. and Belt Line R. R. Total $4,000,000. Noted Aug. 25.

Ill., Chicago—Apartment—Anderson & Miller, c/o P. F. Olsen, archt., 127 North Dearborn St., 3 story, 200 x 217 ft., rein.-con., brick and stone, East Lake Terrace, to J. Anderson & Son, 5723 Winthrop Ave., $550,000.

Ill., Chicago—Apartment—G. B. Bumgardner, 215 North State St., 3 story, 150 x 190 ft. at 6930 Crandon Ave., masonry to Rutledge Bowe Constr. Co., 64 West Madison, carpentry to Olson & Johnson, 4736 Manor Ave. Total $275,000.

Ill., Chicago—Apartment—A. W. Wallen, 6712 North Clark St., 3 story, 120 x 125 ft., concrete and brick on North Clark St. and North Shore Ave., masonry to E. Edlunds, 6520 North Artesian Ave.; carpentry to Thorgerson & Ericksen, 4804 North Kedzie Ave. Total $175,000.

Ill., Chicago — Home — Cook Co., 519 County Bldg., 3 story, 50 x 135 ft., brick, rein.-con. and stone, Ogden and Roosevelt Aves., to J. W. Snyder Co., 122 South Michigan Ave., $670,000. Noted Sept. 1.

Ill., Evanston—Apartment and Store—Nazarian Bros., 1726 Sherman Ave., Chicago, 3 story, rein.-con., brick and stone, Clark St. and Sherman Ave., here, to C. T. Lundstrom, 133 West Washington St., Chicago. $160,000. Noted Oct. 13.

Ia., Des Moines—Office and Store—Northern Securities Co., Iowa Bldg., will build 3 story, 102 x 167 ft., rein.con., brick and terra cotta, 14th and Locust Sts. $150,000. Work will be done by day labor. C. E. Cope, R. & T. Bldg., archt.

Kan., Salina—Temple—Masonic Temple Assn., c/o E. A. Hiller, secy., Box 52, 3 story, brick and steel, to Eberhardt Constr. Co., Salina, $750,00.

Neb., Lincoln—School—Bd. Educ., Elliott School, 2 story, 120 x 195 ft., brick, tile and terra cotta, to C. C. Bickel, 617 East 16th St., University Place, $280,000. Noted July 21.

Mo., Kansas City — Church — Linwood Blvd. Presbyterian Church 2 story, with 96 ft. tower, brick, stone, steel and terra cotta. $250,000. Work will be done by day labor under supervision of Greenbaum, Hardy & Schumacher, archts., Scarritt Bldg. Architect taking bids on all subs.

Mo., Kirksville—School—G. M. Laughlin 3 story, 96 x 100 ft., brick and stone, to L. F. Poehlman, Kirksville, $200,000. Noted Sept. 29.

Tex., Kerrville—Hospital—State American Legion, c/o S. B. Cowell, chn., Austin, 4 story brick, stone and rein.-con., here, to A. E. Johnson Constr. Co., Waco, $256,862.

Okla., Tulsa—Office—W. E. Wright, 211 Wright Bldg., 8 story, 46 x 104 ft., rein.-con., brick, stone and terra cotta, 3d and Denver Sts., to G. W. Langford Co., Columbia Bldg., cost plus percentage basis. Noted Oct. 13.

Cal., Long Beach—Apartment—Munholland & Co., 104 Pacific Ave., 9 story, rein.-con., brick, marble and terra cotta, Chestnut Pl. and Windsor Way, to Wallace-Bush-Skidmore Co., Los Angeles Ry. Bldg., Los Angeles, $300,000.

Cal., Los Angeles — Store — Hollywood Impvt. Co., 4 story, 78 x 119 ft., rein.-con. and terra cotta, Hollywood Blvd. and McCadden Pl., to Milwaukee Bldg. Co., Wright & Callender Bldg., $187,000.

B. C., Victoria—Hospital—Trustees Royal Jubilee Hospital Fort St., general contract 5 story, rein.-con. and brick, to Parfitt Bros., 1303 Gladstone Ave., $107,986. Noted Sept. 15.

Federal Government Work

PROPOSED WORK

D. C., Wash. — Paving — Spec. 4542 — Bureau Yards & Docks, Navy Dept., Wash., D. C., plans paving at Navy Yard, here.

Cal., San Diego — Cold Storage, etc. — Spec. 4543—Bureau Yards & Docks, Navy Dept., Wash., D. C., cold storage and refrigerator equipment in Naval Hospital, here.

Cal., San Diego — Ovens — Spec. 4540 — Bureau Yards & Docks, Navy Dept., Wash., D. C., plans Dutch ovens in Marine Barracks, here.

BIDS DESIRED

Vt., Vergennes—Monument—Nov. 22, U. S. Engineer, Room 710, Army Bldg., New York, monument, here; adv. this issue.

N. Y., Plattsburg—Monument—Nov. 15, U. S. Engineer, Room 710, Army Bldg., New York, monument, here; adv. this issue.

D. C., Bellevue—Rebuilding Boiler Setting—Spec. 4541—Oct. 26, Bureau Yards & Docks, Navy Dept., Wash., rebuilding boiler setting, here.

N. C., Cape Fear—Tower and Tank, etc—Nov. 8 Treas. Dept. Wash., D. C., steel tower, wood tank, piping etc, at U. S. Quarantine Station, here. J. A. Wetmore, acting superv. archt.

N. C., Cape Hatteras—Engine House—Spec. 4522—Oct. 26, Bureau Yards & Docks, Navy Dept., Wash., D. C., engine house, here.

Tenn., Memphis—Lumber—Oct. 25, at Office Mississippi River Comn., 1st and 2nd Dists., Customhouse; adv. this issue.

Ill., Chicago—Piping, etc—Nov. 1, Treas. Dept. Wash., D. C., water service piping, etc., at U. S. Pub. Health Serv. Hospital 2, Broadview, here. J. A. Wetmore, acting superv. archt.

Mo., St. Louis—Vessel—Nov. 15, Office Secretary, Mississippi River Comn., 1311 International Life Bldg., motor vessel; adv. this issue.

Okla., Tahlequah—Mess Hall—Nov. 3, Dept. Interior, Office of Indian Affairs, Wash., D. C., mess hall, at Cherokee Orphan Training School, here. C. H. Burke, comr.

N. M., Ft. Bayard—Mechanical Equipment—Nov. 3, Treas. Dept., Wash., D. C., mechanical equipment for infirmary, central heating plant, power plant and outside service, at U. S. Pub. Health Serv. Hospital 55, here. J. A. Wetmore, acting superv. archt.

Ariz., Prescott—Millwork and Glazing—Oct. 27, Treas. Dept., Wash., D. C., in office H. G. Richey, supt. of constr., here, millwork and glazing new ambulant patients' mess hall, etc., nurses' quarters alterations, mess hall extension for refrigeration plant, laundry and boiler house extensions and alterations for N. P. Ward Post Exchange, U. S. Public Health Service Hospital, Whipple Barracks, here. J. A. Wetmore, acting superv. archt.

BIDS RECEIVED

D. C., Anacostia—Storehouse—Spec. 4516 —Bureau Yards & Docks, Navy Dept., Wash., D. C., storehouse for pigeon supplies, Naval Air Station, here, from W. E. Mooney, 605 Evans Bldg., Wash., $2,342 (30 days); A. H. Rogers, 616 Colorado Bldg., Wash., $2,490 (30 days); H. S. Hatton Constr. Co., 1218 Randolph St., N.E., Wash., $3,077 (30 days). Noted Sept. 29.

Va., Quantico—Water Main—Spec. 4513 — Bureau Yards & Docks, Navy Dept., Wash., D. C., extending c.i. mains, here (1) work complete, from Pittsburgh-Des Moines Steel Co., 959 Munsey Bldg., Wash., D. C., (1) $8,513 (60 days), (2) $2, (3) $1.75, (4) $40; Wingo & Deaner, P. O. Box 816, Richmond. (1) $8,900 (60 days), (2) add $165, deduct $1.15, (3) $2.50, (4) $60; Claiborne & Taylor, Richmond Trust Bldg., Richmond. (1) $9,495, (2) $1.73, (3) $1, (4) $80. Noted Sept. 29.

Ill., Chicago—Roads and Walks—Treas. Dept., Wash., D. C., roads and walks, at U. S. Public Health Service Hospital, Broadview, here, from Warner Constr. Co., Chicago, (a) $89,584, (b) $47,853; J. A. Sackley Co., 133 West Washington St., (a) $121,832; Commonwealth Impvt. Co., 179 West Washington St., (a) $110,000, (b) $35,736.

Tex., Port Arthur—Operating Building—Spec. 4511—Bureau Yards & Docks, Navy Dept., Wash., D. C., operating building at Naval Radio Station, here, (1) work complete, from W. F. Martins, 53 Franklin St., Rochester, N. Y., (1) $4,725 (120 days), (2) add $200 (10 days); H. W. McCord, 439 Proctor St., (1) $4,850 (120 days), (2) $250 (10 days); King Lumber Co., Charlottesville, Va., (1) $6,743 (120 days). Noted Sept. 29.

CONTRACTS AWARDED

N. J., Lake Denmark—Power Plant Improvements—Spec. 4501—Bureau Yards & Docks, Navy Dept., Wash., D. C., power plant improvements and fire protection system, here, to Lord Constr. Co., 105 West 40th St., New York, $28,384 (125 days). Noted Oct. 6.

Md., Indian Head—Waterproofing Cooling Pond—Spec. 4428—Bureau Yards & Docks, Navy Dept., Wash., D. C., drainage, grading and waterproofing pond, here, to S. J. Smith, 11 East Lexington Ave., Baltimore, $1,340 (100 days). Noted Oct. 13.

La., Milliken Bend—Levee Work—Third Mississippi River Dist., Vicksburg, Miss., levee work Upper Tensas Levee Dist., here, to Clark, Denison & Co., Natchez, Miss., $23,870.

La., New Orleans — Levee — Mississippi River Comn., 4th Dist., levee work, Lake Borge Levee Dist., to A. A. Buras, Boothville, $3,445.

Ill., Rock Island—Lock Gates and Valves —U. S. Engineer, lock gates and valves for Rock Island Rapids, le Claire Canal Lock, here. Lot A, to Penn Bridge Co., Beaver Falls, Pa., $18,373; Lot B, Dravo Contg. Co., Diamond Bank Bldg., Pittsburgh Pa., $3,892. Noted Sept. 15.

Miscellaneous

PROPOSED WORK

Harbor Terminal—New Haven, Conn.—Harbor Terminal Comn. plans harbor terminal, consisting of several piers, wharves and dock warehouses, steel and concrete. $4,000,000. E. S. Nettleton, city engr. H. McL. Harding, Grand Terminal, New York, associated engr. Noted Jan. 6.

Grain Elevator, etc.—Buffalo, N. Y.—Amer. Grain & Feed Corp., 303 Chamber of Commerce, having plans prepared 2 elevators, grain drier, flour mill, feed mill and warehouse. $400,000. L. R. Veatch, 528 Pratt St., engr.

Track Elevation, etc.—Durham, N. C.—City having surveys made and plans prepared elevation of tracks, constructing underpasses and new depot, removal of

Miscellaneous (Continued)

yards. $500,000. F. T. Miller, Greensboro, engr.

Lighting Extensions—Cleveland, O.—Plans Whiteway lighting extensions at East 105th St. and Euclid Ave., Bway. from East 37th St. to Miles Ave. and Superior and Payne Aves. $182,000. C. G. Beckwith, City Hall, engr.

Elimination of Grade Crossings—Lakewood (Cleveland, P. O.), O.—City and New York Central R.R. plan elimination of grade crossing on Highland Ave. $360,000. E. A. Fischer, city engr.

Dry Dock—Burrard Inlet, B. C.—Burrard Wharf Co. Ltd., 525 Seymour St., Vancouver, plans dry dock, here, $2,500,000. J. Coughlan, Front and Columbia Sts., and A. Wallace, 850 Hastings St. W., Vancouver, interested.

BIDS DESIRED

Crane—New Haven, Conn.—Bd. Contr. & Supply receiving bids locomotive unloading crane for new dock.

Binder Stone, etc.—New York, N. Y.—Oct. 24, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., 2,000 cu.yd. binder stone, 300 ton asphaltic cement, 300 ton limestone dust or other suitable inorganic dust.

Lamp Posts—North Bergen (Weehawken, P. O.), N. J.—Oct. 26, by Hudson Co. (Jersey City) Blvd. Comn. 135 lamp posts for Hudson Blvd., here. $15,000. Noted Aug. 25.

Asphalt Cement, etc—Nashville, Tenn.—Oct. 25, by S. H. McKay, secy. Bd. Pub. Wks., 400 ton asphalt cement, 1 tank car road oil, and 2 car tanks fuel oil. W. Southgate, City Hall, engr.

Stadium—Chicago, Ill.—Nov. 30, South Park Comrs., 57th St. and Cottage Grove Ave., concrete and stone, on Lake Front, between Roosevelt Rd. and 16th St. J. F. Neil, secy.; adv. this issue. Noted Aug. 18.

Coal and Ash Handling Machinery and Equipment—Milwaukee, Wis.—Nov. 11, by Sewerage Comn., coal and ash handling machinery and equipment for building on Jones Island. J. F. Fowles, secy.; adv. this issue.

Pipe Line, etc.—Okemah, Okla.—Oct. 25, 21 mi. gas pipe line, and 4 regulator stations. $90,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Roller, etc.—Austin, Tex.—W. E. Dozier, 230 Austin Natl. Bank Bldg., receiving bids 8 or 10 ton tandem roller, asphalt plant, electric motors, upright boilers, conveyors, concrete mixer, etc.

Wharf and Transit Shed—Houston, Tex.—Oct. 24, by City Secretary, concrete wharf and transit shed. $250,000. J. C. McVea, City Hall, engr.

Road Machinery—Odessa, Tex.—Ector Co. receiving bids excavating and conveying machinery to load gravel at pit and unload from cars, graders, scrapers, scarifiers, drags, tractors, steam shovels, rock crushers, culverts and road forms. Address J. T. Cross, co. judge.

RECEIVED BIDS

Binder Stone, etc., Brooklyn, N. Y.—E. Riegelmann, boro. pres. (1) 1,500 cu.yd. binder stone, (2) 2,800 cu.yd. asphalt sand, (3) 940 net tons of limestone or other suitable inorganic dust, (4) 1,500 bbl. Portland cement, (5) 25,000 grade 1 granite paving blocks, (6a) 1,200 cu.yd. 1½ in. gravel, (1b) 1,200 cu.yd. 1½ in. broken stone, (7) 1,500 cu.yd. paving sand, from Calvin Tomkins Co., 30 Church St., New York., (1) $2.19 per cu.yd.; New York Trap Rock Corp., 101 Park Ave., New York, (1) $2.23, (3) $8.40; Hygrade Builders Supply Co., 6th St. and 2nd Ave., (1) $2.29, (2) $1.39, (4) $2.87, (6a) $2.64, (7) $1.29; E J. Woodworth, 245-81st St. (2) $1.50; J. J. Guinan Contg. Co., 2314 Gravesend Ave. (2)$1.61, (6b) $2.80; E. Meyer Co., (3) $7.35; M. M. Canda, 184-3rd St., (4) $2.75; S. D. Duffy, (4) $3.09; J. Leopold & Co., Inc., 233 Bway., New York, (5) $130 per m; J. Meehan & Son, 74 Cortlandt St., New York, $134.75; B. Turecano Contg. Co., 8706 Bay 12th St., (6b) $2.72, $3,264; Washington Buckley, Inc., 666 Kent Ave., (6b) $2.95; Connors Bros., (7) $1.40; Eastern Contrs. Supply Co., 373 Fulton St., (7) $1.49. Incorrectly noted Oct. 6 under "New York."

Dock Wall, etc.—Buffalo, N. Y.—Pub. Wks. Comn., Municipal Bldg., (1) dock wall in Sect. 2 Buffalo Harbor, (2) dock wall and channel improvement in Buffalo River west of Ohio St. Bridge, from Great Lakes Dredge & Dock Co., D.S. Morgan Bldg., (1) $149,500, (2) $146,800; Cleveland Eng. & Constr. Co., 778 The Arcade, Cleveland, (1) $153,500, (2) $112,000; Dunbar & Sullivan, Iroquois Bldg., (1) $191,000, (2) $150,500 Noted Sept. 29.

Heating and Ventilating Apparatus, etc.—New York, N. Y.—Dept. Educ., 500 Park Ave., heating and ventilating apparatus in P. S. 26, Andres, West Burnside and University Aves., from E. Rutzler Co., 404 East 49th St., $49,983, W. J. Olvany, 100 Charles St., $50,673, Raisler Heating Co., 129 Amsterdam Ave., $50,960; temperature regulation apparatus, etc., from Bishop & Babcock, 376 Lafayette St., $3,550, Natl Regulator Co., 166 Lexington Ave., $3,600.

Tunnel—Seattle, Wash.—Bd. Pub. Wks., tunnel for Gorge Creek Plant of Skagit River development, from R. C. Storrie & Co., Crocker Bldg., San Francisco, Cal., $2,203,865; Puget Sound Bridge & Dredging Co., Central Bldg., $2,332,571; Grant Smith Co., Henry Bldg., $2,476,840. Noted Oct. 6.

CONTRACTS AWARDED

Breakwater—Chicago, Ill.—South Park Comrs., 47th and Cottage Aves., tile breakwater from Jackson Park to 51st St., to Central Dredging & Dock Co., Bangor Bldg., Cleveland, O., $600,000.

Greenhouses—Pana, Ill.—W. Amling Co. will build seven 1 story, brick, steel and glass, by day labor. $250.000.

Power Transmission Line — Janesville, Wis.—Janesville Electric Co., 26 West Milwaukee St., 17 mi. power transmission line from here to Footville and Oxfordville, by day labor. W. R. Schmidley, c/o owner, engr.

Foundations—Bozeman, Mont.—State Bd. Examiners, Helena, foundation for (1) engineering building, (2) biology building, at College of Agriculture and Mechanic Arts, here, to F. Swanstrom, Great Falls, (1) $11,000; Jarl & Lasker, Great Falls, (2) $18,900. Noted Aug. 25.

Asphalt—St. Paul, Minn.—For 101 ton asphalt for paving Jefferson Ave. from Snelling Ave. to Fredericks St., to Roxanna Petroleum Co., 208 South Harrison St., Chicago, $20.50 per ton tank cars. Noted Sept. 29.

Fiber Paving Bricks—St. Paul, Minn.—For 60,000 fiber paving bricks for repaving Wabasha St. Bridge, to Streater Clay Mfg. Co., 713 Guardian Life Bldg., $2,424. Noted Sept. 22.

OFFICIAL PROPOSALS

Bids: Nov. 1

Tunnel Construction

River Rouge, Mich.

Sealed proposels for the construction of a tunnel under River Rouge at Jefferson Avenue, Village of River Rouge, Wayne County, Mich., will be received by the Village of River Rouge, Michigan, at the office of the undersigned George Jerome, Village Engineer, 1329-31-32 Majestic Building, Detroit, Michigan, up to and including Tuesday, November 1st, 1921, at six o'clock p.m. Which bids will be publicly opened by the Council of the Village of River Rouge, Mich., at the Municipal Building, No. 9 South Dearbòrn Avenue, at eight o'clock p.m. on November 1st, 1921.

The tunnel will be 13 feet, inside diameter; 350 feet long.

Its average depth below water level will be about 50 feet.

The work will also include the construction of the vertical shafts at each end of the tunnel and the laying of certain water mains through the tunnel, etc.

Plans, specifications, forms of proposals, etc., can be secured at the Village Engineer's office as above stated upon depositing the sum of Five Dollars.

A certified check in the amount of $7,000.00, made payable to the Treasurer of the Village of River Rouge, must accompany each bid. The right to reject any and all bids is expressly reserved by the Village, also to waive any formal defects in the bids when deemed for the best interest of the Village.

GEORGE JEROME,
Village Engineer.
1329-31-32 Majestic Bldg.
Detroit, Mich.

Dated October 4th, 1921.

Bids: Oct. 27.

Pumping Plant

Pike County, Ill.

Sealed bids will be received by the Commissioners of the Valley City Drainage and Levee District, Pike County, Illinois, in the office of the Commissioners at Naples, Illinois, until October 27th, 1921, 2:00 p.m., for the construction of a pumping plant in said district, consisting of two centrifugal pumps of about 40,000 gallons per minute capacity, together with fuel oil engines, building and necessary appurtenances, according to the plans and specifications on file with the Board of Commissioners of said district.

Bids will be received upon all or any part of the work. The commissioners reserve the right to reject any and all bids and readvertise the letting of the work.

Each person bidding on the work shall deposit a proposal bond or a certified check for ten (10) per cent of the amount of his bid.

Payments for the work will be based on monthly estimates, ten (10) per cent being retained until the work is finally accepted.

Special facilities for seeing the work will be provided upon request to the Edmund T. Perkins Engineering Company, 1210, 38 South Dearborn Street, Chicago, Illinois.

Plans and specifications will be furnished by the Edmund T. Perkins Engineering Company upon the deposit of $5.00, which deposit will be refunded upon return of the plans and specifications in good order within ten (10) days after the awarding of contract.

WM. SEVERNS, Chairman.
THOMAS MEEHAN, Commissioner,
HARRY G. EDWARDS, Commissioner.

Bids: Nov. 15.

Bridge Work

Oklahoma City, Okla.

Notice to contractors: sealed proposals will be received at the office of the State Engineer until 2 p.m., Nov. 15, 1921, for the construction of four (4) bridges with approaches. These bridges are in Muskogee County, known as K. O. & G., Frisco, Webbers Falls and Whitefield Ferry, known as Federal Aid Project No. 51 and 52.

Approximate quantities are as follows: structural steel, 2,500 tons, reinforcing rods, 210 tons, reinforced concrete piles, 1,750 lin.ft. concrete substructure, 8,000 cu.yd., roadway concrete, 1,730 cu.yd. surfacing either asphalt or wood blocks, 9,100 sq.yd. grading, 48,000 cu.yd.

Bids will be considered separately on substructure, superstructure, surfacing and grading for each bridge or on each bridge complete.

Plans may be examined at the office of the State Engineer or at the County Clerk's office at the county seat. Forms of proposal, contracts and specifications may be secured only at the office of the State Engineer. Plans may be furnished complete for $8.25 or 25c. per sheet.

Bids must be on proposal forms furnished by the State Highway Department and accompanied by certified check of 10% of this bid. No proposal bond or "Bidders Bond" will be accepted.

Bidders must submit a financial statement and furnish evidence that they have satisfactorily constructed similar structures.

Detailed instructions to bidders will be found on pages 4 to 8 inclusive of specifications.

B. E. CLARK,
Commissioner of Highways,
ERNEST S. ALDERMAN,
State Engineer.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Oct. 31	Dallas, Tex.	Oct. 13
Oct. 31	Taylor, Wis.	Oct. 27
Oct. 31	Detroit, Mich.	Oct. 20
Nov. 1	River Rouge, Mich. Adv. Oct. 20 and 27.	Oct. 20
Nov. 4	Cleveland, O.	Oct. 27
Nov. 7	Idlewood (Warrensville P. O.), O.	Oct. 20
Nov. 7	Perrysburg, N. Y.	Oct. 27
Nov. 10	New York Adv. Oct. 6 to 27.	Oct. 6
Nov. 10	New Braunfels, Tex.	Oct. 13
Nov. 14	Syracuse, N. Y.	

SEWERS

Bids Close		See Eng. News-Record
Oct. 31	Akron, O.	Oct. 27
Nov. 1	East Moline, Ill.	Oct. 27
Nov. 1	De Kalb, Ill.	Oct. 27
Nov. 2	Monroe, La. Adv. Oct. 20 and 27.	Oct. 20
Nov. 4	Phila., Pa.	Oct. 27
Nov. 8	London, Ont.	Oct. 13
Nov. 9	Reading, Pa.	Oct. 20
Nov. 15	Rutherford, N. J.	Oct. 20
Nov. 22	Wallington, N. J.	Oct. 20
Nov. 29	Newark, N. J.	Oct. 27

BRIDGES

Bids Close		See Eng. News-Record
Nov. 1	Chester. S. C.	Oct. 27
Nov. 7	Washington	Oct. 27
Nov. 8	North Carolina	Oct. 27
Nov. 9	Washington, N. J. Adv. Oct. 27	Oct. 27
Nov. 9	Mays Landing, N. J. Adv. Oct. 27	Oct. 27
Nov. 11	Detroit, Mich. Adv. Oct. 27	Oct. 27
Nov. 12	Buffalo, N. Y.	Oct. 27
Nov. 15	Oklahoma City Okla.	Oct. 6
Nov. 16	Little Rock, Ark. Adv. Oct. 27	Oct. 27
Nov. 18	Dayton, O.	Oct. 20

RAILWAYS

Bids Close		See Eng. News-Record
Nov. 9	New York	Oct. 20

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Nov. 1	Garner, Ia.	Oct. 27
Nov. 3	Valley, Ill. Adv. Oct. 27	Oct. 27
Nov. 5	Charleston, Mo.	Oct. 20
Nov. 9	Red Oak, Ia.	Oct. 27
Nov. 17	Carrollton, Ill. Adv. Oct. 27	Oct. 27
Dec. 1	Riverton, Wyo.	Oct. 20
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Bids Close		See Eng. News-Record
Oct. 31	Palestine, Tex.	Oct. 20
Oct. 31	California	Oct. 20
Oct. 31	Louisiana	Oct. 20
Oct. 31	New Jersey	Oct. 20
Oct. 31	Bakersfield, Cal.	Oct. 27
Nov. 1	Lewisburg, W. Va.	Oct. 13
Nov. 1	La Grange, Tex.	Oct. 20
Nov. 2	New Mexico	Oct. 20
Nov. 2	Monroe, La. Adv. Oct. 27	Oct. 27
Nov. 2	Centerville, Ia.	Oct. 27
Nov. 2	Brooklyn, N. Y.	Oct. 27
Nov. 3	Denton, Tex.	Oct. 27
Nov. 3	New York, N. Y.	Oct. 27
Nov. 4	St. Genevieve, Mo.	Oct. 27
Nov. 5	Weldon, N. C.	Oct. 27
Nov. 7	Louisiana	Oct. 27
Nov. 8	Warren, Minn.	Oct. 27
Nov. 8	Stockton, Cal.	Oct. 27
Nov. 8	Bay City, Tex.	Oct. 27
Nov. 8	North Carolina	Oct. 27
Nov. 9	Mays Landing, N. J. Adv. Oct. 27	Oct. 27
Nov. 9	Titusville, Fla.	Oct. 27
Nov. 10	Ishpeming, Mich.	Oct. 27
Nov. 10	Missouri	Oct. 27
Nov. 11	Missouri	Oct. 27
Nov. 17	West Virginia Adv. Oct. 27.	Oct. 27

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Nov. 1	Phila., Pa.	Oct. 27
Nov. 7	Cleveland, O.	Oct. 27

BUILDINGS

Bids Close		See Eng. News-Record
Nov. 1	Santa Ana, Cal.	Oct. 6
Nov. 1	Elizabeth, N. J.	Oct. 13
Nov. 1	Bloomville, O.	Oct. 13
Nov. 1	Teaneck (Englewood P. O.) N. J.	Oct. 20
Nov. 1	Rockton, Ill.	Oct. 20
Nov. 1	Big Rapids, Mich.	Oct. 27
Nov. 1	Gravenhurst, Ont.	Oct. 27
Nov. 2	Canton, O.	Oct. 27
Nov. 5	Peoria, Ill.	Oct. 13
Nov. 5	Peoria, Ill.	Oct. 20
Nov. 5	Sunderland, Mass. Adv. Oct. 27	Oct. 27
Nov. 7	Bridgman, Mich.	Oct. 20
Nov. 7	La Grange, Ill.	Oct. 27
Nov. 7	Lorain, O.	Oct. 27
Nov. 8	Osawatomie, Kan.	Oct. 20
Nov. 10	Ithaca, N. Y. Adv. Oct. 27	Oct. 27
Nov. 16	San Francisco, Cal.	Oct. 27
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Oct. 31	Hospital — Ft. Bayard, N. M.	Oct. 13
Nov. 1	Piping, etc.—Chicago, Ill.	Oct. 20
Nov. 1	Removal of Wreck—Charlotte, N. Y. Adv. Oct. 27	Oct. 27
Nov. 1	Removal of Wreck—Buffalo, N. Y. Adv. Oct. 27	Oct. 27
Nov. 2	Quarters—Prescott, Ariz.	Oct. 13
Nov. 2	Remodeling Barracks—Mare Island, Cal.	Oct. 6
Nov. 3	Mess Hall — Tahlequah, Okla.	Oct. 20
Nov. 3	Mechanical Equipment — Ft. Bayard, N. M.	Oct. 20
Nov. 7	Mezzanine Floor—Baltimore, Md.	Oct. 27
Nov. 8	Tower and Tank—Cape Fear, N. C.	Oct. 20
Nov. 9	Wiring System—Phila., Pa.	Oct. 27
Nov. 10	Kitchen and Mess Hall—Ft. Logan H. Roots, Ark. Adv. Oct. 27	Oct. 27
Nov. 10	Dredging — Weymouth, Mass. Adv. Oct. 27.	Oct. 27
Nov. 10	Dredging, Boston, Mass. Adv. Oct. 27	Oct. 27
Nov. 15	Monument — Plattsburg, N. Y. Adv. Oct. 20 and 27.	Oct. 20
Nov. 15	Vessel—St. Louis, Mo. Adv. Oct. 20 and 27.	Oct. 20
Nov. 15	Equipment — Sheridan, Wyo.	Oct. 27
Nov. 16	Mechanical Equipment — Prescott, Ariz.	Oct. 27
Nov. 16	Watertube Boilers — Memphis, Tenn. Adv. Oct. 20 and 27.	Oct. 27
Nov. 18	Lock Gates—Cincinnati, O. Adv. Oct. 27	Oct. 27
Nov. 21	Buildings — Walla Walla, Wash.	Oct. 27
Nov. 22	Buildings—Rutland, Mass.	Oct. 27
Nov. 22	Monument—Vergennes, Vt. Adv. Oct. 27.	Oct. 27
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6

MISCELLANEOUS

Bids Close		See Eng. News-Record
Nov. 1	Grader—Watertown, S. D.	Oct. 27
Nov. 2	Refined Asphalt — Brooklyn, N. Y.	Oct. 27
Nov. 11	Coal and Ash Handling Machinery and Equipment — Milwaukee, Wis. Adv. Oct. 20 and 27.	Oct. 20
Nov. 30	Stadium—Chicago, Ill.	Oct. 20

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Scottville—Making plans pumping and filtering plant and 6 mi. c.i. mains. Hopkins & Field, 349 Cutler Bldg., Rochester, engrs.

N. Y., Wilson—Had plans prepared 5 mi. c.i. mains, pumping station and tower. Hopkins & Field, 349 Cutler Bldg., Rochester, engrs.

Pa., Ebensburg—To vote on $80,000 bonds for concrete reservoir, pumping station and mains. H. F. Dorr, Trust Bldg., engr.

Va., Bristol—Cities of Bristol, Va., and Tennessee making plans improving joint and individual water supplies, incl. filtration, pumping, reservoir capacity and enlarging pipe lines. S. G. Keller, city mgr., Bristol, Va., G. P. Biedleman, Bristol, Tenn., comr. pub. impvts. Norton, Bird & Whitman, Munsey Bldg., Baltimore, Md., engrs.

Ill., Abingdon—Making plans extending 6 in. c.i. mains. $27,000. G. J. Slough, clk. Engineer's name withheld.

Ill., St. Anne—Making plans waterworks. $59,000. Marr Green & Co., 400 North Michigan Ave., Chicago, engrs.

O., Dayton—Plans water softening plant lime and soda ash process, incl. settling tanks and filter beds. $800,000. G. Baker, city engr.

O., Dayton—Soon takes bids 3,000,000 gal. suction reservoir at Keowee St. Pumping Sta. $75,000. G. Baker, city engr.

Ia., Ashton—Making plans waterworks, 50,000 gal. steel tank, 100 ft. steel tower, and pumping equipment. $25,000. W. E. Buell & Co., Davids Bldg., Sioux City, engrs.

Minn., Little Falls—Making plans filtration plant. $25,000. L. P. Wolff, 1001 Guardian Life Bldg., St. Paul, engr. Noted Jan. 20.

Minn., Morris—Making plans for iron removal and filtration plant and remodeling old plant. $40,000. Engineer not announced.

S. D., White Lake—Plans improving waterworks, $45,000 bonds voted. Smith & Reeves, Mitchell, engrs.

S. D., Canton—Plans extending 4 and 6 in. c.i. mains. $28,000. G. Hokenstad, clk. Engineer not selected.

Okla., Granite—Defeated $65,000 bonds for waterworks. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs. Noted Sept. 22.

Okla., Oklahoma City—Nov. 26, to vote on $1,600,000 bonds improving waterworks. B. M. Hart, city engr.

Mont., Red Lodge—Plans 10 in main from intake of 8 in. line, West Fork of Rock Creek, to 16th St. $70,000. L. B. Evanson, clk.

Tex., Marlin—Plans reservoir, stand pipe and mains. $225,000. L. Goodrich, city engr.

Tex., Wortham—Election Nov. 7, waterworks sewers and electric light plants. Eng. Serv. Co., Sumpter Bldg., Dallas, consult. engrs.

Col., Loveland—Having survey made 8 mi. 24 in. conduit. $400,000. L. C. Oskom, city engr.

BIDS DESIRED

N. Y., Perrysburg—Nov. 7, by G. C. Andrews, water comr., Municipal Bldg., Buffalo, 1,000,000 gal. rein.-con. reservoir, at J. N. Adams Hospital, here. Noted Sept. 22.

N. Y., Syracuse—Nov. 14, Bd. Contract & Supply, first 6 mi. (ultimately 29 mi.) 90 in. conduit to Skaneateles Lake, $560,000. Total, $3,000,000. H. C. Allen, City Hall, engr. Noted Oct. 20.

Waterworks (Continued)

O., Cleveland—Nov. 4, concrete covered reservoir (Baldwin Reservoir), 3,500,000 lb. reinforcing, 26,000 lin.ft. drain tile, 100,000 yd. concrete and 57,000 cu.yd. earth excav. $2,500,000. A. V. Ruggles, City Hall, **engr.**

Mich., Detroit—Oct. 31 by Comr. Purchases and Supplies, 710 Marquette Bldg., 1,320 ton 6 in., 1,877 ton 8 in., 169 ton 10 in., 1,452 ton 12 in., 1,139 ton 16 in., 5,263 ton 24 in. and 3,780 ton 42 in. B. & S. c.i. water pipe, 79,200 ft. 6 in., 79,200 ft. 8 in., 5,280 ft. 10 in., 31,680 ft. 12 in. and 15,840 ft. 16 in. Universal c.i. pipe, 31,680 ft. 13½ in. O. D. 31 in. thick, 15,840 ft. 18 in. O. D. 33 in. thick and 37,700 ft. 26 in. O. D. 37½ in. thick, Matheson joint steel pipe, 37,700 ft. 24 in. and 10,560 ft. 42 in. taper courses steel lock bar pipe, 37,700 ft. 24 in. straight, 37,700 ft. 24 in. taper bumped, 10,560 ft. 42 in. straight bump and 10,560 42 in. taper bumped Hammer-welded steel pipe. T. A. Leisen, Water Works Park, engr.

Wis., Taylor—Oct. 31, by H. T. Neperud, village clk., waterworks, 100,000 gal. elevated steel tank, mains, hydrants, valves and wells. W. S. Woods, Batavian Bank Bldg., LaCrosse, engrs. Noted May 19.

Minn., Forest Lake — Nov. 4, T. D. Arends, village recdr., one 27 ft. concrete well, 18 in. diameter, one brick and concrete pump house, one triplex and one centrifugal pump with motors, piping switchboard and incent work. $15,000. Former bids rejected. Druar & Milinowski, 504 Globe Bldg., St. Paul, engrs. Noted Oct. 6.

BIDS RECEIVED

N. Y., Scarsdale—Opened bids Oct. 10, waterworks force main and substructures, from Garofano Constr. Co., Inc., 14 South 10th Ave., Mt. Vernon, $28,416; Gross Contg. Co., 303 Philipsburg Bldg., Yonkers, $30,277; F. A. Gammino, 331 Bway., Providence, R. I., $31,480.

Pa., Harrisburg—For enlarging filtration plant, 8 new filters, filter building, reservoir, sedimentation basin, Contr. A, from Whiting Turner Constr. Co., 403 Stewart Bldg., Baltimore, Md., $375,588, S. W. Shoemaker & Son, 421 Walnut St., $421,584, T. L. Eyre, 1537 Commercial Trust Bldg., Phila., $449,298; 2 new 15,000,000 gal. high lift centrifugal pumps, boiler, boiler house, etc. Contr. B, from Ranson & Anderson, 136 Liberty St., New York, $200,338, J. H. Wickersham, Brennan Bldg., Lancaster, $243,622, Roberts Filter Mfg. Co., 6th and Columbia Sts., Darby, $243,745; 2,000 lin.ft. 36 in. Class C pipe, Contr. C, from Meadow & McCarthy, 2425 State St., $40,160, Natl. Constr. Co., 2218 Chestnut St., Phila., $41,242, T. L. Eyre, 1537 Commercial Trust Bldg., Phila., $42,860. Noted Sept. 29.

Mich., Detroit—Water Bd. 8,200 ft. 6 in. mains in Park Dr., Flanders, Edgerton, Heston, Wilfred and Cherrylawn Aves., 2,557 ft. 8 in. in Wisconsin Ave. Pipe will be purchased and laid by city forces. T. A. Leisen, Water Works Park, engr.

Ill., Elmhurst—For 4-6 in. c.i. mains, to T. H. Iglehart, 209 South La Salle St., Chicago, $30,000. Noted Oct. 6.

Wash., Seattle—Bd. Pub. Wks. opened bids Oct. 14, mains on Westlake Ave. N., 500 lin.-ft. 8 in. Class D, c.i. pipe, 750 lin.-ft. ¾-in. galvanized iron pipe, etc., from S A. Moceri, Thompson Bldg., $24,603; J. L. Smith, Pioneer Bldg., $24,615; Fiorito Bros., New York Blk., $26,817.

CONTRACTS AWARDED

Mass., West Springfield—Water Bd., c.i. water pipe extensions, to Donaldson Iron Co., 24 Milk St., Boston, to exceed $25,000.

N. Y., S. I. St. George — N. J. Hayes, comr. Water Supply Gas & Electricity, Municipal Bldg., New York, hauling and laying mains in Arrietta St. and along bulkhead wall from Arrieatta St. to Clifton, here, to G. Troiano, 246 Bowery, New York, $16,080. Noted Oct. 20.

Ill., West Hammond—For 6 and 8 in. mains, to M. Donahue, Stevens Point, Wis., $25,000. Noted Aug. 18.

Wis., Cedarburg—Laying water and sewer pipe, to Brogan & Schaefer, 700 Dousman St., Green Bay, $91,139. Noted Sept. 8.

Kan., Victoria—Complete waterworks, to Ladd Constr. Co., Kansas City, Mo., $37,000.

N. D., Dickinson—See "**Sewers.**"

Cal., Fullerton — Furnishing pipe for waterworks to U. S. Cast Iron Pipe & Fdry. Co., 705 Wright & Callender Bldg., Los Angeles, $75,191, fittings $3,600; **laying** pipe to M. & F. Pipe Line Constr. Co., 534 Douglas Bldg., Los Angeles, $38,726. Noted Oct. 20.

Sewers

PROPOSED WORK

N. Y., Scottsville—Having plans prepared disposal plant and 6 mi. 55 in. sewers. Hopkins & Field, 349 Cutler Bldg., Rochester, engrs.

N. Y., Wilson—Had plans prepared 5½ mi. sewers and disposal plant. Hopkins & Field, 349 Cutler Bldg., Rochester, engrs.

N. C., Greensboro—Plans 15 mi. 8 in. terra cotta sewers. $75,000. P. C. Painter, city mgr.

O., Sabina—Plans 1 mi. sewers. $30,000. Jennings-Lawrence Co., Hartman Bldg., Columbus, engrs.

Mich., Detroit—Dept. Pub. Wks. plans 2,626 ft. 33 in. to 5 ft. sewer Grand River Ave. arm. East Wyoming sewer; 8,196 ft. 12-24 in. Lateral Sewer 3521; 5,176 ft. 12-24 in lateral 3522; 6,125 ft. 12-24 in. Lateral 3538; 457 ft. 2 ft. 8 in. to 4 ft. Lateral 3545. C. W. Hubbell, city engr.

Ill., Carbondale—Making plans 20,000 ft. clay tile sewers and 26 brick and concrete manholes. $75,000. R. O. Rollo, City Hall, Murphysboro, engr.

Wis., St. Croix Falls—Making plans sewerage system. $75,000. W. R. Taylor, clk. Toltz, King & Day, 1410 Pioneer Bldg., St. Paul, engrs.

S. D., White Lake—Plans sewerage system, $25,000 bonds voted. Smith & Reeves, Mitchell, engrs.

Tex., Wortham—See "Waterworks."

Okla., Oklahoma City—Nov. 26, to vote on $1,600,000 bonds for sewers and disposal plant. B. M. Hart, city engr.

BIDS DESIRED

N. J., Newark—Nov. 29, by Passaic Valley Sewerage Comrs., 128 Market St., northerly portion Sect. 29, Brown St. Branch Intercepting Sewer, Essex Co., 4,432 lin.ft. earth excav. and refilling in trench for 24 in. circular concrete sewer, 598 lin.ft. earth excav. and refilling in trench for 15 in. vitr. sewer with concrete reinforcement, 1,500 cu.yd. concrete masonry, etc. J. R. Van Duyne, ch. engr.

Pa., Phila.—Nov. 4, by **F. A.** Caven, dir. pub. wks.. following concrete sewers, 2,220 ft. of 5 x 6 ft. in Bigler St. from 3rd to 4th Sts., 4th St. from Bigler to Johnson Sts., and Johnson St. from 4th to 7th Sts.. $125,000; 2,067 ft. of 6 x 6 ft. in Bigler St. from present terminus in Vandalia St. to 3rd St., $125,000; 1,150 ft. of 6½ ft. in J, and in I St. from Venango St. to Erie Ave., $75,000; 3,291 ft. of 5 ft. intercepting sewer along Tacony Creek in I and H Sts. and Tacony Creek Park, $220,000; 1,501 ft. of 4½ ft. in 57th St. from Malvern Ave. to Ithan St., $60,000; 1,547 ft. of 10½ ft. in Everett St. from present terminus south of McGee St. to McGee St., also McGee St. from Everett St. to Cranberry Ave., $115,000; 1,619 ft. of 5½ ft. and 1,000 ft. 6 in. c.i. pipe in Fletcher St. from Sedgley Ave. to 29th St., $125,000; 1,695 ft. of 7 ft. in Bingham St. from Adams Ave. to Phila. & Reading R.R., $75,000. C. **Frommer, City Hall, engr.** Noted Oct. 6.

La., Monroe—See "Streets and Roads."

Tex., Brownwood—See "Miscellaneous."

O., Akron—Oct. 31, by E. A. Zeisloft, dir. Pub. Serv., trunk and lateral sewers in Case Ave. and Newton St. Dist., 1,535 ft. 39 in., 380 ft. 48 in. and 340 ft. 63 in. vitr. brick or segmental block and 5,000 ft. 8-24 in. tile block; Switzer Creek Dist., 620 ft. 78 in., 1,910 ft. 72 in. and 55 ft. 30 in. vitr. brick or segmental block, and 4 100 ft. 24 in. tile block; trunk sewer in Bittman and Hall Sts., 740 ft. 30 in., 575 ft. 36 in. and 240 ft. 48 in. vitr. brick or segmental block and 1,500 ft. 8-24 in. tile block. J. E. Root, 300 Delaware Bldg., engr.

Ill., De Kalb—Nov. 1, 6-12 in. glazed tile sewers. $26,000. W. Hay, city engr.

Ill., East Moline—Nov. 1, 10-12 in. glazed sewers in 3d St. $25,000. L. E. Sneary, City Bldg., engr. Noted Sept. 8.

BIDS RECEIVED

Mich., Detroit—For lateral sewers, (1) 3495, (2) 3536, (3) 3537, (4) 3539, (5) 3540, (6) 3547, (7) 3551, from Western Constr. Co., 1208 Ford Bldg., (1) $12,105, (3) $5,369, (4) $8,190, (6) $12,438, (7)
$2,994; Oakwood Constr. Co.,
Blvd., (1) $14,200, (2) $9,500, (3
(4) $10,000, (6) $13,500, (7) $3,30
erty Constr. Co., 917 Detroit Savings
Bldg., (1) $13,990, (2) $9,700, (4) $
(6) $14,890, (7) $3,790; R. D. Baker,
Elmhurst Ave., (2) $10,583, (3) $5,
W. Porath, 1410 West Grand Blvd.,
$3,088; G. Tata, 9650 Oakland Ave.,
$2,957; A. Rossi, 1778 East Grand Blv
(5) $3,000. Noted Oct. 13.

Utah, Salt Lake City—Opened bids Oct. 19, for 8-15 in. vitr. sewers in 6th St. S. to 2nd St. north from 8th St. west to Jordan River, from Shepard & Meher, Cullen Hotel, $125,096; C. E. Green, Clift Bldg., $126,815; Security Bridge Co., Helena, Mont., $129,139.

CONTRACTS AWARDED

N. J., Passaic—Passaic Valley Sewerage Comrs., 128 Market St., Newark, central portion of Sect. 19, Garfield-Wallington-Passaic Branch Intercepting sewer, here, to Harrison & Craig Co., 31 Clinton St., Newark, 925 lin.ft. earth excav. and refilling, in trench, for 42 in. concrete sewer, $19.45, 800 lin.ft. earth excav. and refilling, in trench for 24 in. concrete sewer, $11.80, 720 cu.yd. concrete masonry, in trench, $15.50, etc., total $50,237. Noted Sept. 29.

Pa., Phila.—For concrete sewers in Ashdale St., Erie Ave. also Packer St. from 22nd St. to Penrose Pl., and Moyamensing Ave., to A. Pascutti, Lincoln Bldg., $144,523, $27.808 and $103,690 respectively; Packer St. from Penrose Pl. to Colorado St., to Union Foundation Co., Phila., $40,459; 9th St., to A. Devito, 1521 South Broad St., $18,151. Noted Oct. 6.

N. C. Rocky Mount — See "Streets and Roads."

O., Dayton—Dry Hollow Storm sewer and sewers in Euclid, Kenwood and Richmond Aves., incl. 2 concrete culverts over Miami and Erie Canal, by day labor. $500,000. G. Baker, city engr.

Ill., Pontiac—For 1012 in. vitr. tile sewers in Hazel and East Prairie Sts., to W. Grossell, Pontiac, $28,341.

Ia., Newell—Sewerage system to Kruse Constr. Co., Spencer, $25,000.

Minn., Albany — Sanitary sewerage system incl. disposal plant, to Hammen & Co. Mankato, $25,519. Notede Aug. 25.

N. D., Dickinson—Sewerage system and water mains, to J. Kennedy, R 97 Bway., Fargo, $70,820.

Bridges

PROPOSED WORK

Vt., Bridgewater—State Hy. Dept., Montpelier, plans 65 ft. steel superstructure, 20 ft., Warren type, for Booth Bridge over Ottaquechee River, here. $25,000. H. M. McIntosh, state engr.

Vt., Troy—Bd. Selectmen **had plans prepared** by H. M. McIntosh, state engr., **Montpelier**, 87 ft. rein-concrete "T" beam **bridge**, 20 ft., **3 spans on wood piles, over Missisquoi River. $25,000 to $30,000.**

Mass., Boston—State Metropolitan Dist. Comn., 18 Tremont St., making plans Cottage Farm Bridge. $750,000. J. R. Rablin, 18 Tremont St., engr.

Kan., Topeka—Shawnee Co. making plans and lets contracts in November various bridges. $100,000. A. C. Lagerwall, Topeka, engr.

S. D., Yankton—Yankton Co. rejected bids opened Sept. 16, bridge over Beaver Creek, on Yankton-Salem Rd., Federal Aid Project 77. Noted Oct. 6.

N. D., Fargo—Plan 500 ft. bridge over Red River of North, between here and Moorhead, Minn. $500,000. W. R. Tucker, 728-8th St., N., Fargo, secy. Joint Comn. Engineer not announced.

Tex., Bastrop—Bastrop Co. making plans 1,340 ft. bridge over Colorado River, steel spans, concrete piers and abutments, 16 ft. roadway. $160,000. A. F. Mitchell, Cameron, co. engr.

Tex., Georgetown—Williamson Co. making plans 330 ft. bridge over Berrys Creek north of here, five 41 ft. concrete girders and one 125 ft. steel span. $34,188; 3 concrete girder bridges on Meridian Highway over Willis Branch, Bull Branch and Long Branch, $26,000; 310 ft. bridge over San Gabriel River on Highway 2-C, two 150 ft. steel spans on concrete piers, $36,675. R. A. Nichols, co. engr.

Bridges **(Continued)**

Tex., Tyler—Smith Co. making plans rein.-con. culverts and bridges and concrete pile trestle bridges on State Highway 37, 1,400 cu.yd., rein.-con., 1,040 lin.ft. concrete piling. $60,000. D. K. Caldwell, co. engr.

Utah, Brigham—State Hy. Comn., Salt Lake City and Boxelder Co., had plans prepared and soon receive bids 2 steel bridges one 100 ft. long at mouth of Ogden Canyon and other 60 ft. long, $28,500. H. C. Means, Salt Lake City, state highway engr.

BIDS DESIRED

N. Y., Buffalo—Nov. 12, by Pub. Wks. Comn., Municipal Bldg., reconstructing, renewing and protecting viaduct on Louisiana St. over Erie R.R., New York Central R.R.; also viaduct on Perry St. over Lake Shore & Michigan Southern R.R., New York Central R.R. G. H. Norton, Municipal Bldg., engr.

N. J., Mays Landing — Nov. 9, by Bd. Freeholders Atlantic Co., Guarantee Trust Bldg., Atlantic City, 72 ft. creosoted wooden pile bridge over Babcocks Creek on line of reconstructed Sugar Hill Sect. of Pleasantville-Mays Landing Rd., Hamilton Twp. A. H. Nelson, 636 Guarantee Trust Bldg., Atlantic City, co. engr.; adv. this issue. Noted Aug. 18.

N. J., Washington—Nov. 9, by State Hy. Dept., Trenton, 2 steel I-beam trolley bridges 3 and 4 on Route 12, Sect. 4, near here, Franklin Twp., Warren Co. C. A. Mead, 790 Broad St., Newark, bridge engr.; adv. this issue.

North Carolina — Nov. 8, by State Hy. Comn., Raleigh, bridges and culverts on State Project 455, Wake Co., 750 cu.yd. concrete, 95,000 lb. reinforcing, 570 ft. untreated timber piles, etc. $27,000. C. M. Upham, state highway engr.

S. C., Chester — Nov. 1, by Bd. Dirs. Chester Co., 249 ft. rein.-con. bridge over Fishing Creek. H. H. Kester, Chester, engr.

O., Dayton—See "Miscellaneous."

Mich., Detroit — Nov. 11, by Bd. Rd. Comrs. Wayne Co., superstructure of double-leaf bascule bridge over River Rouge, West Fort St.; adv. this issue.

Minn., Moorhead—See "N. D., Fargo."

Ark., Little Rock — Until Nov. 16, by Comrs. Bway.-Main St., Bridge Dist., Moore & Turner Bldg., superstructures for 2 rein.-con. arch bridges across Arkansas River. J. Matthews, secy.; adv. this issue.

Washington—Nov. 7, by State Hy. Comn., Olympia, 2 rein.-con. bridges on Natl. Park Highway between Ohop and Peterson; channel changes and reconstructing steel bridge over Beaver Creek on Olympic Highway east of Beaver, Pierce Co., 400 cu.yd. rein.-con. and 40,000 lb. steel. J. Allen, State Hy. engr.

BIDS RECEIVED

North Carolina—State Hy. Comn., at div. office Wilmington, opened bids Oct. 10, rein.-con. bridges and culverts on (1) State Project 517, Columbus Co., (2) State Project 622, Robeson and Columbus Counties, (3) State Project 596, Cumberland and Sampson Counties, (4) Project 541, Pender Co., (5) State Project 623, Bladen Co., from Cornell-Young Co., 4th Natl. Bank, Macon, Ga., (1) $54,317, (4) $55,637; J. E. Lane & Co., Altavista, Va., (1) $66,051, (2) $60,059; Powell Paving & Constr. Co., Palmetto Bank Bldg., Columbia, S. C., (1) $70,751, (4) $62,332, (5) $31,319; L. A. Chitwood, 1109 Price St., Columbia, S. C., (2) $53,500; J. A. Kreis, Holston Bank Bldg., Knoxville, Tenn., (2) $65,147; Roanoke Bridge & Iron Co., Roanoke, Va., (3) $23,931; C. W. Lacy, Wilmington, (3) $27,284; Austin Bros. Bridge Co., Hurt Bldg., Atlanta, Ga., (3) $27,883; Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., (4) $68,753, (5) $32,704; Porter & Peck, Greenville, N. C., (5) $31,737. Noted Sept. 22.

Ala., Tuscaloosa—W. S. Keller, state highway engr., Montgomery, bridge over Warrior River between Tuscaloosa and Northport, from Virginia Bridge & Iron Co., Roanoke, Va., $130,950, Bethlehem Steel Bridge Corp., Bethlehem, Pa., $144,800, Phoenix Bridge Co., Phoenixville, Pa., $152,450; 5 concrete piers for above bridge, from J. A. Peterson, Bell Bldg., Montgomery, $47,229, Finnell Co., Tuscaloosa, $48,599, Illinois Steel Bridge Corp., 608 Laclede Gas Bldg., St. Louis, Mo., $50,686. Noted Sept. 29.

CONTRACTS AWARDED

Tenn., Greeneville—Greene Co. Bridge Comn. following rein.-con. bridges, 100 ft. span over Camp Creek, 50 ft. over Lick Creek, 40 ft. over Jockey Creek, 35 ft. over Gap Creek, 30 ft. over Snapps Ferry, 40 ft. over Hartman Creek, to J. A. Steel, Jr., Holston Bank Bldg. and O. T. Roehl, 217 North Bway., both of Knoxville.

Tex., Livingston—Polk Co. rein.-con. bridges and culverts, concrete pile and timber pile trestles on State Highway 1, from Austin Bros. Bridge Co., Coombs St., Dallas, $65,014; Johnson Constr. Co., Dayton, $65,164; I. Young, Livingston, $66,615.

Dams

Col., Colorado Springs—Beaver Park Land & Water Co. Brush Hollow dam, 310,000 cu.yd. earth embankment, 5,500 yd. rip-rapping on face of dam, $225,000; also continuation of ditches, pipe lines, etc., $20,000. G. G. Anderson, 533 Consolidated Realty Bldg., Los Angeles, Cal., engr.

Excavation and Dredging

PROPOSED WORK

Ia., Spirit Lake—Dickinson Co. making plans Drain 56, earth excav. and concrete culverts. $40,000. R. A. Furman, Spirit Lake engr.

Col., Colorado Springs—Beaver Park Land & Water Co., plans Brush Hollow dam, 310,000 cu.yd. earth embankment, 5,500 yd. riprapping on face of dam, $225,000; also continuation of ditches, pipe lines, etc., $20,000. G. G. Anderson, 533 Consolidated Realty Bldg., Los Angeles, Cal., engr.

BIDS DESIRED

Ill., Carrollton — Nov. 17, Comrs. Macoupin Creek D.D., at office Clerk of Greene Co. excavating main ditch and laterals. Kelker, Gates & DeLeuw, 1206 Conway Bldg., Chicago, engrs.; adv. this issue.

Ill., Valley—Nov. 3, (change of date) by Comrs. Valley City Drainage and Levee Dist., Pike Co., at Naples, centrifugal pumps, oil engines, etc. E. T. Perkins Eng. Co., 38 South Dearborn St., Chicago, engrs.; adv. this issue. Noted Oct. 13.

Ia., Garner—Nov. 1, by C. Jacobs, aud. Hancock Co., D. D. 7, 59,430 ft. 6-26 in. tile, etc. $25,000. Noted June 2.

Ia., Red Oak—Nov. 9, Bd. Supervs. Montgomery Co., at office C. Nimrod, aud. 8.5 mi. open ditch, D.D. 6, 211,000 cu.yd. excav. C. D. Forsbeck, Red Oak, engr.

CONTRACTS AWARDED

Minn., Stillwater—Washington Co., Judicial Ditch 5 and 7 labor to F. H. Peterson, Morristown, $3,530 and $3,070 respectively, tile to What Cheer Clay Products Co., What Cheer, Ia., $6,800 and $4,500 respectively; Judicial Ditch 6, to Paine & Gjelleford, St. Paul, $11,112. Noted Oct. 6.

Streets and Roads

PROPOSED WORK

N. C., Greensboro—Plans extending various paved streets. $200,000. P. C. Painter, city mgr.

N. C., Raleigh—City, Street Ry. Co. and State Hy. Comn., plan paving, curbing and guttering Bloodworth and Smithfield Sts., State Project 595, 8,700 sq.yd. concrete or asphaltic. $25,000. C. M. Upham, state highway engr.

N. C., Shelby—Plans to issue $300,000 paving 5 mi. various streets. Engineer not selected.

Fla., Miami Beach—Plans widening 5 mi. Collins Ave., Ocean Dr., 1st., 2nd and 3rd Sts., probably brick. $75,000. R. M. Davidson, city engr.

Tennessee—State Highway Dept., Nashville, takes bids in few weeks surfacing 15 mi. State Rd. 26 from Hohenwald to Lawrence Co. line, 16 ft., gravel or chert, Lewis Co. $100,000. D. Q. McComb, ch. engr.

Mich., Detroit—Plans paving Longfellow Ave., from Linwood to Lawton Aves., 4,000 sq.yd. asphalt on 8 in. concrete, $25,510; McGraw Ave. from Martin to Bradden Aves., 1,202 sq.yd. sheet asphalt on 8 in. concrete; alleys 1400 to 1405 inclusive, one course rein.-con. C. W. Hubbell, city engr.

Ill., Decatur—Making plans paving Williams and Main Sts., sheet asphalt on concrete. $75,000. W. Collins, Decatur, engr.

Ill., Lawrenceville—Making plans paving various streets, vitr. brick on concrete, $100,000. P. J. Benefail, Lawrenceville, engr.

Wis., Milwaukee—State Hy. Comn. Madison, takes bids after Jan. 1, concrete paving 5½ mi. 68th Ave. from Lincoln Ave. to Loomis Rd., 18 ft.; widening to 40 ft. and concrete paving Blue Mound Rd. from Hawley Rd. to Loop, $150,000; concrete paving and grading 5 mi. Brown Deer Rd. from Brown Deer Twp. through Granville, 18 ft. for Milwauke Co. Wisconsin Hy. Comn., Madison engrs.

Ia., Davenport—Bd. Supervs. Scott Co. opens bids about Nov. 9, grading and paving 6.25 mi. Sect. B Davenport-Harrison-New Liberty Rd., 18 ft., 8,642 cu.yd. excav., 69,017 sq.yd. concrete or brick paving. $250,000. J. M. Malloy, co. engr.

Ia., Sheldon—Plans paving 7 blocks, $26,000. S. Martin, clk.

Minn., Albert Lea—Freeborn Co. plans grading 6 mi. road, 24 ft., and concrete bridge, Hayward and Albert Lea Twps. $40,000. C. Squires, Albert Lea, engr.

Minn., Detroit—Making plans paving 25 blocks. $150,000. Druar & Milinowski, 504 Globe Bldg., St. Paul, engrs.

Minn., Minneapolis—Plans widening, grading and paving 1.5 mi. Superior Blvd. from Hennepin Ave. to city limits, 120 ft. $125,000. F. W. Cappelen, city engr.

Kan, Atchison—Atchison Co. making plans and soon takes bids grading and bridging 6 mi. King of Trails Sect. 1, or Leavenworth Rd., 2 bridges 30 ft. spans, 3 bridges 18 ft. spans, 90,000 cu. yd. earth and 2,000 cu.yd. rock excav. R. Kerr, Jr., Atchison, engr.

Kan., Hutchinson—Reno Co. making plans grading and gravel surfacing 15 mi. various roads. $150,000. Southwestern Eng. Co., Nelson Bldg., engrs.

Kan., Topeka—Shawnee Co. takes bids in December grading 6 mi. Capital Highway, 30 ft. A. C. Lagerwall, Topeka, engr.

Wyo., Kemmerer—Rejected bids paving 10 blocks, Park Ave., Pine, North and South Main Sts. Will readvertise in spring. Noted Sept. 1.

Missouri—State Hy. Dept., Jefferson City, plans 1.403 mi. road from Perryville to Claryville, State Aid Project 20.114, Perry Co., 33,145 cu.yd. earth and 6,671 cu.yd. rock excav., 371.2 cu.yd. concrete masonry, etc., $43,398; 1.918 mi. road from Mexico northwardly, State Aid Project 20.109, Audrain Co., 10,263 cu.yd. earth and 344 cu.yd. rock excav., 108.3 cu.yd. concrete masonry, etc., $10,529; 1.371 mi. road from Waynesville eastwardly, State Aid Project 20.107, Pulaski Co., 13,472 cu.yd. earth and 600 cu.yd. rock excav., 53.2 cu.yd. concrete masonry, etc., $16,761; 2.386 mi. road from Holland southwardly, State Aid Project 20.101, Pemiscot Co., 7,944 cu.yd. earth excav., 3,579 cu.yd. borrow and 43.4 cu.yd. concrete masonry, $6,769; 1.46 mi. road from Weingarten southwestward, State Aid Project 20.1, St. Genevieve Co., 7,530 cu.yd. earth and 4,766 cu.yd. rock excav., 108.2 cu.yd. concrete masonry, etc., $18,336. A. Graham, state highway engr.

Missouri—State Hy. Dept., Jefferson City, plans 7.21 mi. road from Cuba westward, State Aid Project 20.105, Crawford Co., 3,851 cu.yd. earth and 500 cu.yd. rock excav., 224.9 cu.yd. concrete masonry, etc., $28,931; 17.09 mi. road from Lamar northward, eastward and westward, State Aid Project 20.104, Barton Co., 44,436 cu.yd. earth excav., 662.3 cu.yd. concrete masonry, etc., $45,070. A Graham, state highway engr.

Tex., Groveton—Trinity Co. making plans grading, gravel surfacing and building bridges on 10 mi. State Highway 19, from Houston Co. line to Trinity, 16 ft., $110,000; grading and gravel surfacing 7 mi. State Highway 19 from Trinity to Walker Co. line, 16 ft., $80,000. W. J. Kelly, Huntsville, co. engr.

Tex., Livingston—Polk Co. rejected bids opened Sept. 22, draining and timber pile trestles on 9.7 mi. State Highway 35. Work will be readvertised. Noted Oct. 13.

Tex., Pecos — Reeves Co. making plans grading and gravel surfacing 5.68 mi. Old Saragosa-Pecos City Rd., 16 ft., $27,900; 11.27 mi. Old Saragosa-Toyahvale Rd., 16 ft., $48,315; 15.8 mi. Highway 27, Saragosa to Pecos Co. line, 16 ft., $59,500. A. J. Adcock, Grandfalls, co. engr.

Tex., Rock Springs—Edwards Co. soon takes bids grading and clearing 3.96 mi. Rock Springs-Camp Wood-Uvalde Highway 8,982 cu.yd. earth, 6,945 cu.yd. rock and 1,080 cu.yd. structural excav., 1,324 sq.yd. concrete, 58,000 lb. reinforcing steel. $65,000. W. E. Simpson, Hicks Bldg., San Antonio, engr.

Okla., Weatherford—Plans paving 26,200 sq.yd. streets. $180,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Streets and Roads (Continued)

Col., Denver—Plans grading and surfacing 40 blocks West Colfax Impvt. Dist. $88,754. J. B. Hunter, City Hall, engr.

Idaho—State Hy. Comn., Boise, plans grading and gravel surfacing 18 mi. Idaho-Pacific Highway. $90,000. H. Gregory, office engr.

Utah, Salt Lake City—W. W. Latham, clk., opens bids about Nov. 16, curbing and guttering 52,340 lin.ft. Extension 24 from 3d to 11th Aves. and from H to N Sts., incl. 16,000 sq.yd. 4 in. sidewalks. 70,000 cu.yd. excav., 2,063 lin.ft. 24 in. rein.-con. pipe, and 5,750 ft. 12-15 in. vitr. or cement pipe. S. Q. Cannon, city engr.

Wash., Morton—Opens bids about Nov. 15, paving Main St., et. al., 70,226 sq.yd. concrete. $27,500.

Que., Verdun—Making plans paving ¾ mi. Wallington Rd., 33 ft., bituminous macadam. $55,000. A. E. Gysons, City Hall, engr.

BIDS DESIRED

N. Y., Brooklyn—Nov. 2, by E. Riegelmann, boro. pres., repaving Kent Ave. from North 12th to Franklin Sts., Franklin St. from Kent Ave. to Commercial St. and Commercial St. from Franklin St. to Manhattan Ave., grade 1 granite on present concrete.

N. Y., New York—Nov. 3, by H. H. Curran, pres. Manhattan, Municipal Bldg., widening and repaving 60th St. from 2nd to 3rd Aves., 52nd St. from 6th to 7th Aves.; repaving East 61st St. from 3rd to Park Aves., 65th St. from 5th to Park Aves., sheet asphalt on concrete, Bridge St. from Whitehall to State Sts., 4 in. granite block on present concrete.

N. J., Mays Landing — Nov. 9, by Bd. Freeholders Atlantic Co., Guarantee Trust Bldg., Atlantic City, Sugar Creek Sect. of Pleasantville-Mays Landing Rd., Hamilton Twp., bituminous concrete on concrete. A. H. Nelson, 636 Guarantee Trust Bldg., Atlantic City, co. engr.; adv. this issue. Noted Aug. 18.

West Virginia — Nov. 17, by State Rd. Comn., Charleston, grading and paving, bituminous penetration macadam, 6.45 mi. Project 3001, Putnam Co., 2.6 mi. Project 3042, Kanawha Co.; grading and concrete paving 2 mi. Project 3073, Ohio Co., 3.5 mi. Project 3005, Wood Co.; grading 6.8 mi. Project 3040, Fayette Co., 2 mi. Project 3100, Gilmer Co., 1.75 mi. Project 3004 Marion Co., 4 mi. Project 3003, Monongalia Co., 10.35 mi. Project 3010, Mineral Co. E. B. Carskaden, secy.; adv. this issue.

North Carolina—Nov. 8, by State Hy. Comn., Raleigh, grading and paving 5.12 mi. State Project 427, Old State Project 523, Granville Co., 5 acres clearing, 20,900 cu.yd. excav., 626 ft. 15-30 in. corrugated metal pipe, 48,060 sq.yd. concrete or asphaltic paving, 1,370 lb. reinforcing, etc., $150,000, 2.3 mi. State Project 410, Old State Project 524, Durham and Orange Counties, 6 acres clearing, 9,500 cu.yd. excav., 1,800 cu.yd. rock excav., 538 ft. 12-30 ft. concrete pipe, 24,350 sq.yd. concrete or asphaltic paving, 3,400 lb. reinforcing, etc., $82,000, 6.64 mi. road from Garner to Johnston Co. line State Project 482, Old State Project 520, Wake Co., 23,400 cu.yd. excav., 994 ft. 15-36 in. rein.-con. pipe, 62,400 sq. yd. concrete or asphaltic paving, 6,190 lb. reinforcing, etc., $220,000; grading, paving and bridging, 7.4 mi. State Project 481, Wake Co., 12 acres clearing, 45,700 cu.yd. excav., 882 ft. 15-24 in. concrete pipe, 78,000 sq.yd. concrete or asphaltic paving, 291 cu.yd. concrete, 30,600 lb. reinforcing, 200 ft. untreated timber piles, etc., $260,000. C. M. Upham, state highway engr.

N. C., Weldon—Nov. 5, by Highway Comn. Halifax Co., grading and surfacing 4 mi. road from Tillery to Crowells Cross roads, 15,000 cu.yd. excav., 4,000 cu.yd. sand-clay and 4,000 cu.yd. gravel surfacing, 5 acres clearing, 2,000 ft. relief trenching, 390 ft. 12-36 in. metal culvert pipe, etc. C. F. Gore, co. engr.

Fla., Titusville—Nov. 9, Bd. Comrs. Brevard Co., grading and surfacing 15 mi. road from Melbourne to Osceola Co. line, rock or shell macadam, $120,000. C. A. Browne, Tallahassee, state highway engr.

Louisiana—Nov. 7, by State Hy. Dept., New Orleans, gravel surfacing 10.53 mi. Natchitoches-Mansfield Highway, from Robeline to Desota parish line, also 8.81 mi. Natchitoches-Colfax Highway, from Grand Encore to Salina Bayou. D. Buie, New Orleans, state hy. engr.

La., Monroe—Nov. 2, grading, paving, curbing, guttering and building storm sewers, R. S. Reynolds, city engr.; adv. this issue.

Mich., Ishpeming—Nov. 10, by State Hy. Dept. at office Bd. Rd. Comrs. Marquette Co., grading 11.426 mi. State Trunk Line Rd. 35-5, Sect. C, 68 acres clearing, 190,000 cu.yd. excav. F. F. Rodgers, Lansing, comr.

Ia., Centerville—Nov. 2, by J. B. McNeal, aud. Appanoose Co. grading 10 mi. roads southwest and northeast of here, Project 76, 175,388 cu.yd. excav., 6,735 lin.ft. 6-12 in. tile. $40,000. F. L. Davis, engr.

Minn., Warren—Nov. 8, by A. G. Lundgren and Marshall Co., gravel surfacing 4 mi. State Rd. 3, Job 2201; 3 mi. State Rd. 4, Job 2203; 11 mi. State Rd. 4, Job 2205; 7 m. State Rd. 5, Job 2209. $25,000. J. E. Dishington, Warren, engr.

Missouri—Nov. 10, by State Hy. Dept., Jefferson City, 3.185 mi. State Aid Project 20.32 De Kalb Co., 8,739 cu.yd. earth excav., 26,858 cu.yd. borrow, 331.1 cu.yd. concrete masonry, etc. $27,601. A. C. Lingley, Court House, St. Joseph, engr.

Missouri—Nov. 11, by State Hy. Dept., Jefferson City, 1.804 mi. State Aid Project 20.34, Livingston Co., 1,714 cu.yd. earth excav., 87,064 cu.yd. borrow, 15.2 cu.yd. concrete masonry, etc. $50,u53. A. C. Lingley, Court House, St. oJseph, engr.

Mo., St. Genevieve—Nov. 4, by St. Genevieve Co., grading and paving road. $28,849. W. S. Murray, Sikeston, engr. Noted Sept. 15.

Tex., Bay City—Nov. 8, by J. F. Perry, judge Matagorda Co. ditching and surfacing 7.23 mi. State Highway 12-A, 4,121 cu.yd. ditching, 32,606 cu.yd. borrow, 74.16 cu.yd. 1:2:4 concrete, 5,750 lb. reinforcing, 13,498 cu.yd. shell surfacing. $52,700. J. C. Carrington, co. engr.

Tex., Denton—Nov. 3, by E. I. Key, judge Denton Co., gravel surfacing 10.03 mi. State Highway 40 Denton-Dallas Rd., 94,190 sq.yd. bituminous macadam, $50,000; paving and bridging 8.54 mi. Denton-Sherman Rd., 9,884 sq.yd. concrete paving, 512.36 cu.yd. Class A concrete, 155,,378 lb. structural and 29,208 lb. reinforcing steel, $78,000. T. E. Huffman, co. engr.

Cal., Bakersfield—Oct. 31, Bd. Supervs. Kern Co., paving 6 mi. Reward Rd. Dist. 15, 8 in. concrete.

Cal., Stockton—Nov. 8, Bd. Supervs. San Joaquin Co., improving (1) 8.1 mi. Goose Valley Rd. from Clements to Amador Co. line, (2) 2 mi. Carlin Rd. (3) 1.5 mi. Tracy-Bethany Rd., $66,000, $18,080 and $7,975 respectively. F. E. Quail, co. surv.

BIDS RECEIVED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Oct. 18, grading and otherwise improving Jamaica Bay Blvd. from point 1,436 ft. south of center line of Sheridan Ave. to southerly U. S. bulkhead line of Jamaica Bay, excluding those portions to be privately graded, etc., 4th and 5th Wards, from Smith, Hauser & Mac Isaacs, Inc., 18 East 41st St., New York, $2,870,000; Raymond Concrete Pile Co., 90 West St., New York, $2,897,000; G. Colon & Co., 81 East 125th St., New York, $3,087,786. Noted Oct. 6.

N. Y., New York—Park Bd. at office Dept. Parks, Municipal Bldg., opened bids Oct. 20, paving driveway between 155th and Dyckman Sts., sheet asphalt on concrete, from C. D. Beckwith, Inc., 301 West 108th St., $165,435; Uvalde Asphalt Paving Co., 1 Bway., $182,565; Asphalt Constr. Co., 2197 Madison Ave., $183,360. Noted Oct. 13.

Pa., Phila.—For grading (1) Arlington, Berks, 52nd and 53rd Sts. (a) 30,147 cu.yd. grading, (2) Pentridge and Ridgewood Sts., (a) 6,718 cu.yd. (3) 16th St. and 68th Ave., (a) 13,803 cu.yd., (4) 19th St., (a) 2,062 cu.yd., (5) Hilltop Rd., Crefeld St., Rex and Shawnee Aves., (a) 13,133 cu. yd.; grading and paving (6) York Rd., (a) 4,995 cu.yd. grading, (b) 5,140 sq.yd. smooth dressed granite block, (c) 8,850 sq.yd. asphalt, (d) 2,860 cu.yd. cement concrete base, (e) 1,800 sq.yd. 3 in. bituminous macadam surface course, (f) 1,800 sq.yd. 5 in. crushed stone or slag base, (g) 2,500 sq.yd. cement concrete sidewalks, (h) 5,200 lin.ft. 8 in. unarmored 1:2:4 cement concrete curbing; paving (7) Florence Ave., (a) 5,083 sq.yd. asphalt, (8) Marshall St., (a) 1,525 sq.yd. asphalt, (9) Spencer St., (a) 1,899 sq.yd. asphalt, (10) Torresdale Ave., (a) 9,872 sq.yd. asphalt, (b) 1,755 cu.yd. cement concrete base, (11), Westmoreland St., (a) 7,753 sq.yd. asphalt, (b) 1,421 cu.yd. cement concrete base, (12) 15th St., (a) 1,792 sq.yd. asphalt, (13) 24th St., (a) 1,658 sq.yd. asphalt, (14) 27th St., (a) 2,766 sq.yd. asphalt, (15) Bristol and Cayuga Sts., (a) 4,610 sq.yd. asphalt, (16) Rector St., (a) 456 sq.yd. smooth dressed granite block, grading and improving (17) Henry Ave., (a) 2,817 cu.yd. grading, (b) 3,450 sq.yd. 5 in. crushed stone or slag base, (c) 3,450 sq.yd. 3 in. bituminous macadam surface course, (18) improving parkway between Callowhill and Spring Garden Sts., the Crescent and Fairmount Park, (a) 12,600 sq.yd. 2 in. bituminous macadam surface course, (b) 210 sq.yd. vitr. block gutters, (c) 2135 cu.yd. concrete base, (1:3:6 mix), (d) 1,700 sq.yd. concrete footway pavement, (19) Holme Ave. Bridge over Longford Ave. and Wooden Bridge Run, (a) 650 cu.yd. 1:3:6 concrete, (b) 170 cu.yd. 1:3:6 concrete, (c) 164 lin.ft. 1:2:4 concrete balustrades, from T. F. Crilley, (1a) $0.37; E. A. Mullin, (1a) $0.39; T. P. Lee, 5629 Cherry St., (1a) $0.43, (2a) $0.39; J. G. Meade Constr. Co., (2a) $0.55; J. J. McHugh, 1617 Race St., (2a) $0.56; (17c) $0.88; T. L. Flannigan, 1204 East Montgomery St., (3a) $0.41, (4a) $0.41, (5a) $0.635, (17a) $0.45, (17b) $0.73, (17c) $0.63; T. Connor, 3329 North 5th St., (3a) $0.42, (19a) $28, (19b) $40, (19c) $13; F. Mark Constr. Co., 2820 North 21st St., (3a) $0.43, (4a) $0.40; S. H. P. Reed, (4a) $0.46; Root Bros., (5a) $0.84; Barber Asphalt Paving Co., Land Title Bldg., (7a) $1.25, (8a) $1.45, (9a) $1.45, (10a) $1.45, (10b) $7.26, (11a) $1.25, (11b) $8.15, (12a) $1.50, (13a) $1.35, (14a) $1.25, (15a) $1.35, (6a) $0.71, (6b) $5.24, (6c) $1.07, (6d) $6.89, (6e) $1.50, (6f) $0.81, (6g) $1.89, (6h) $0.75, (18a) $0.90, (18b) $2.50, (18c) $5.63, (18d) $1.89; Union Paving Co., 37th and Spruce Sts., (7a) $1,27, (9a) $1.39, (10a) $1,35, (10b) $7.20, (11a) $1.37, (11b) $7.20, (12a) $1.35, (13a) $1.31, (14a) $1.33, (15a) $1.35, (6b) $5.20, (18a) $1.03, (18b) $2.40, (18c) $5.40, (18d) $1.85; Eastern Paving Co., Colonial Trust lBdg., (7a) $1.45, (8a) $1.55, (10a) $1.65, (10b) $7.80, (11a) $1.49, (11b) $7.50, (12a) $1.50, (13a) $1.57, (15a) $1.49, (6a) $0.79, (6b) $5.39, (6c) $1.27, (6d) $7.20, (6e) $1.20, (6f) $1, (6g) $2, (6h) $0.80, (18a) $1.15, (18b) $2.60, (18c) $7.20, (18d) $1.95; Mack Paving Co., Nicetown Lane and Chelten Ave., (8a) $1.67, (14a) $1.53; Curtiss Bros., Tacony Bank Bldg., (6a) $0.84, (6c) $1.27, (6d) $8.33, (6e) $1.60, (6f) $0.60, (6g) $1.80, (6h) $0.70, (17a) 0.54, (17b) $0.70; Fish Rutherford Co., Inc., Real Estate Trust Bldg., (19a) $2.02, (19b) $23, (19c) $16; C. P. Barron, (19a) $18.50, (19b) $23.50, (19c) $17.75; Centroni & Mezzola, Lincoln Bank Bldg., (16a) $6.20; A. J. Anderson, (16a) $7.20; B. Foster Co., 20th and Venango Sts., (17b) $0.80, (17c) $0.94; Connor & Leigh, (17a) $0.52. Noted Oct. 13.

North Carolina—State Hy. Comn., at div office Wilmington, opened bids Oct. 10, (1) clearing, grading and surfacing 7.64 mi. State Project 641, Pender Co., (2) grading, sand-clay surfacing, overhauling, etc., 1.56 mi. State Project 622, Columbus and Robeson Counties, (3) grading and sand-clay surfacing 11.22 mi. State Project 517, Columbus Co., (4) clearing, topsoiling, etc., 13.17 mi. State Project 623, Bladen Co., (5a) grading and concrete paving, (5b) rein.-con. bridges and culverts, on 3.35 mi. State Project 621, Robeson Co., (6a) clearing, grading and topsoiling, (6b) rein.-con. bridges and culverts on 15.56 mi. State Project 518, Pender Co., from C. G. Kershaw Constr. Co., Woodward Bldg., Birmingham, Ala., (1) $30,507, (4) $49,707, (6a) $60,343; Powell Paving & Constr. Co., Palmetto Bank Bldg., Columbia, S. C., (1) $32,438, (5b) $20,254; M. W. Cooper, Kinston, (1) $36,212, (3) $49,013; J. A. Kreis, Holston Bank Bldg., Knoxville, Tenn., (2) $21,431, (3) $39,355; L. A. Chitwood, 1109 Price St., Columbia, S. C., (2) $22,321; Southern Dray Co., Asheville, (2) $26,531; A. W. Mc Clay, 2400 Grove Ave., Richmond, Va., (3) $45,534, (5a) $108,379, (6a) $54,004, (6b) $10,634; J. F. Mulligan Constr. Co., North Wilkesboro, (4) $45,901; Porter & Peck, Greenville, (4) $$50,407, (6a) $53,797, (6b) $11,988; C. W. Lacy, Wilmington, (5a) $106,046, (5b) $20,309; Roanoke Bridge & Iron Co., Roanoke, Va., (5b) $18,229; P. R. Ashby, Tucker Bldg., Raleigh, (5a) $109,582; Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., (6b) $10,849. Noted Sept. 29 and Oct. 6.

Florida — State Rd. Dept., Tallahassee, opened bids Oct. 20, paving 10 mi. State Rd. 1, Federal Aid Project 24, between Lake City and Baker Co. line, Columbia Co. Bids were made upon a basis of (a) cash payment, (b) taking Columbia Co. bonds, from B. A. Inglis, 1012 Crescent Ave., Birmingham, Ala., 300 days, 5 in. plain concrete, 1-2-3 mix, (a) $240,814 (b) accept bonds at $.72; J. Y. Wilson

Streets and Roads (Continued)

Clark Bldg., Jacksonville, Fla., 150 days, 3 in slag penetration macadam on 8 in. compacted base, (a) $255,034, (b) $274,179; Clayton-Mitchell, Thomasville, Ga., 300 days, plain 6-in concrete, 1-2-4 mix. (a) $263,592, (b) $349,909. Noted Oct. 6.

Alabama—State Hy. Comn., Montgomery, grading and surfacing, loose gravel, 14.675 mi. Decatur-Tuscumbia Rd., Colbert Co., from J. W. Gwin, Hamilton Sta., Birmingham, $138,519; Nixon Transfer & Coal Co., Anniston, $145,160; R. L. Barthlemew, Memphis, Tenn., $151,882. Noted Sept. 15.

O., Cleveland—Paving (1) East 108th St. from Union Ave. to Elliott St., (2) Dunlap Ave., 5,470 lin.ft. curb and gutter, 3,900 cu.yd. earth excav., 73,550 sq.ft. vitr. brick on 6 in. concrete, (3) Forest Ave. from East 116th to East 123rd Sts., (4) East 115th St. from Buckeye Rd. to Forest Ave., 4,040 lin.ft. curb and gutter, 4,430 cu.yd. earth excav., 69,000 sq.ft. vitr. brick on 6 in. concrete, from Reiley Bros., The Arcade, (1) $18,159, (2) $26,049, (3) $24,879, (4) $17,996 E. Gedney, Addison Rd., (1) $18,209, (3) $24,490, (4) $18,000; Post Constr. Co., Fairchild Ave., (2) $26,292.

O., Cleveland—Paving (1) East 64th St. from Beaver to Grand Aves., (2) Rugby Rd. from Rodman Court to East 134th St., (3) Riverside Ave. from Fulton Rd. to West 45th St. (4) Dodge Court from Chester Ave. to end, 4,310 lin.ft. curb and gutter, 2,575 cu.yd. earth excav., 53,770 sq.ft. vitr. brick on 6 in. concrete (5) East 88th St. from St. Clair Ave. to west end, (6) Stoughton Ave. from Woodhill Rd. to East 102d St., (7) East 136th St. from Caine to Beechwood Aves., 4,970 lin.ft. curb and gutter, 4,160 cu.yd. earth excav., 36,540 sq.yd. vitr. brick on 6 in. concrete, from Reiley Bros., The Arcade, (1) $8,374, (2) $7,364, (3) $10,078, (4) $8,194 (6) $2,279. (7) $8,858; River Constr. Co., Schofield Bldg., (1) $8,781, (4) $8,333, Garland Bros., c/o Pavers Exch., Society for Savings Bldg., (2) $6,095, (5) $13,591; Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., (3) $10,533; Cleveland Trinidad Paving Co., The Arcade, (5) $12,716; Post Constr. Co., Fairchild Ave., (6) $20,301; Enterprise Paving & Constr. Co., 8444 Bway., (7) $9,258.

Missouri—J. D. Mohler, special highway engr., St. Joseph, opened bids Oct. 10, 7.44 mi. Saxton-Eason Rd., Buchanan Co., 8,983 cu.yd. earth excav., 153,180 yd. borrow, 112 cu.yd. concrete masonry, etc., from W. M. Spencer, Independence, $33,377; M. Costello, 1519 South 22nd St., St. Joseph, $33,786; C. W. Dillingham, 3011 Jule St., St. Joseph, $35,591.

CONTRACTS AWARDED

Connecticut—State Hy. Dept., Hartford, paving 16,270 ft. River Rd., Burlington, 18 ft. 3 in. bituminous macadam, using trap rock on 7 in. broken stone, to Acme Eng. Co., Box 440, Hartford, $115,000; 22,513 ft. Norwich-Westerly Rd., Norwich, 3 in. bituminous macadam, using local stone on 7 in. broken stone, to A. Vito Constr. Co., Thompson, $140,000. Noted Sept. 29.

Connecticut—State Hy. Dept., Hartford, paving 19,250 ft. Nichols Rd., Shelton, 18 ft., 3 in. bituminous macadam on 6 in. stone, to Natl. Constr. Co., 721 Main St., Hartford, $120,000.

Connecticut—State Hy. Dept., Hartford, paving 6,707 ft. Ellington Rd., South Windsor, 3 in. bituminous macadam on 4 in. stone, to G. T. Seabury Inc., 100 Summer St., Providence, R. I., $40,000.

Conn., Thompsonville—Bd. Selectmen paving portions Pearl, Main and Franklin Sts., asphalt, to Lane Constr. Co., 37 Colony St., Meriden, $35,000.

New York—H. S. Sisson, comr. State Hy. Dept., Capitol, Albany, improving 0.72 mi. Highway 8075 Chenango Co., to D. J. Hoose, Oxford, $50,957; 3.53 mi. Highway 8073, Essex Co., to F. E. Ellis, Melrose, Mass., $144,171; 1.09 mi. Highway 8074, Herkimer Co., to L. D. Sullivan Co., Inc., Utica, $37,182; 0.74 mi. Highway 8076, Orange Co., to Vonder Born & Rush, New York, $33,964; 1.07 mi. Highway 1604, Rockland Co., to C. Vanderbilt Genl. Contg. Co., West New Brighton, $40,307; 0.72 mi. Highway 1605, Seneca Co., to J. Johnson Constr. Co., 765 Abbott Rd., Buffalo, $26,474; 4.16 mi. Highway 8077, Steuben Co., to T. Sullivan & Di Pillo Constr. Co., Geneva, $182,851; 2.76 mi. Highway 1570, Westchester Co., to J. Dimando, Inc., 382 Mamaroneck Ave., Mamaroneck, $113,649; reconstructing 2.91 mi. Rep. Contr. 3002, Cattaraugus Co., to A. A. Howard, Fairport, $64,514; 4.51 mi. Rep. Contr. 3026, Schenectady Co., to Malloy Constr. Co., Schenectady, $80,046; 6.77 mi. Rep. Contr. 3014, Tioga Co., to Dale Eng. Co., Mann Bldg., Utica, $193,679. Noted Oct. 13.

N. Y., Brooklyn—Park Bd. at office Dept. Parks, Municipal Bldg., New York, improving main roadway of Ocean Parkway between Ave. W and Coney Island Creek Bridge, etc., here to Cranford Co., 52 9th St., $154,721. Noted Oct. 20.

N. Y., Brooklyn—Transit Constr. Comn., 49 Lafayette St., New York, restoring street and park surface over Eastern Parkway Subway extension, here, to M. J. O'Hara Contg. Co., 717 65th St., $171,500. Noted July 7.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., repaving Commerce St. and Minetta Lane, etc., to Sicilian Asphalt Paving Co., 41 Park Row, $7,125 and $7,383 respectively; East 56th and 97th Sts., to Interboro Asphalt Co., 233 Bway., $14,532 and $22,217 respectively; Liberty St., to M. I. Sachs, 246 South 9th St., Brooklyn, $22,856. Noted Oct. 13.

Pa., Philadelphia—To Ryan Constr. Co., Real Estate Trust Bldg., paving Cambria and 12th Sts., $41,263; United Paving Co., Colonial Trust Bldg., Meadow St., $5,244, Ontario St., $25,173; Barber Asphalt Paving Co., Land Title Bldg., Allegheny Ave., Hope, Madison and Miller Sts., $9,373, D St., $13,620; Union Paving Co., 37th and Spruce Sts., Ritner and 18th Sts., $21,233, 56th St., $6,982, Capitol, Dickinson, Tasker, Woodstock and 22d Sts., $19,400, Thompson and Wallace Sts., $16,300, Torresdale Ave., $63,033, 5th St., from Walnut to South Sts., and Urbana St., $25,348, 7th and 10th Sts., $25,697, 5th St. from South to Wharton Sts., $29,138; Eastern Paving Co., Colonial Trust Bldg, Lawrence Sts., $29,354, Master, Olive and 21st Sts., $28,715, Wyoming Ave., $34,650, Addison and Fulton Sts., $3,838, Springfield Ave., $6,357, Van Dike St., $3,880, Park Ave., $4,523, Limekiln Pike, $7,686, Eleanor St., $11,850; M. E. Meade, 4345 North 7th St., McGee St., $1,870; T. Connors, 3329 North 5th St., 10th St., $1,245; D. McMahon, Germantown and Chelten Aves., 66th Ave., $454; F. T. Buckins, Jr., Kensington and Deal Sts., Mountain, Pierce and Watkins Sts., $18,215; J. J. McHugh, 1617 Race St., Venango St., $22,781; Mack Paving Co., Nicetown Lane and Chelten Ave., Marvine St., $4,145; T. L. Flannigan, 1204 East Montgomery Ave., Bradywine, Wallace and 27th Sts., $21,377. Noted Oct. 6.

N. C., Rocky Mount—For 3.29 mi. bitulithic on 4 in. concrete, with concrete curb and gutter and storm sewers, to R. G. Lassiter & Co., Oxford, $238,233; 3.19 mi. 8-10 in. sanitary sewers, to L. D. Harper, Rocky Mount, $21,394. Noted Oct. 14.

Ohio—Dept. Hys. and Pub. Wks., Columbus, grading and paving 0.32 mi. Sect. "Medina North" I. C. H. 25, Medina Co., brick, to G. S. Mellert-Weidner Co., Medina, $23,562; 0.41 mi. Sect. "Seville" I. C. H. 25 Medina Co., concrete, to Dorris Constr. Co., 320 Metropolitan Bldg., Akron, $25,582; grading, building bridges and culverts on 2.028 mi. Sect. "P" Akron-Wooster Rd., Wayne Co., to Peters & Baird, Wadsworth, $27,026; 3.474 mi. Sect. "K" Orville-Northern Rd., Wayne Co., to Zeller & Drum, Swanton, $17,054. Noted Oct. 13 and 20.

O., Cleveland—Grading, curbing and paving East 144th St., to Gould & Maybach, 823 East 150th St., $33,522. Noted Oct. 20.

O. Cleveland—Grading, curbing and paving Jeffries Ave. from Warner Rd. to West End, Jeffries Ave. from Turney Rd. to East 86th St. and East 154th St., to Fischer & Williams, 16010 Lorain Rd., West Park, $17,485, $16,601 and $23,000 respectively; East 130th St. to A. M. Pejsa Paving Co., Essex Rd., Cleveland Heights, $52,440; Terwood Ave., to W. E. McHugh, c/o Pavers Exch., Society for Savings Bldg., $3,892; Ardmore Ave., to Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., $26,857. Noted Oct. 20.

O., Cleveland—Paving Bosworth Rd. and Fairchild Ave., to Cleveland-Trinidad Paving Co., The Arcade, $17,772 and $5,437 respectively; Rhodes Court, to Roehl Bros. Paving & Constr. Co., West 25th St. and Clark Ave., $8,015; Locust Ave., to Freshwater Constr. Co., Natl. Bldg., $17,229; East 133d and East 134th Sts., to Enterprise Paving & Constr. Co., 8444 Bway., $10,055 and $10,418 respectively. Noted Oct. 20.

O., Waynesburg—Stark Co. (Canton), paving ½ mi. road, 24 and 36 ft., brick on concrete, to Wise Bros., 1132 11th St., N. W., Canton, $40,355.

Ill., Winnetka—Paving Linden Ave., vitr. brick on concrete, to Farmer & Laing, Highland Park, $35,000. Noted Sept. 29.

Minn., Gaylord—Sibley Co. improving State Project 22-21, between here and Norseland about 132,000 cu.yd. excav. and concrete culverts, to Roach Constr. Co., Arlington, S. D., $14,631 and $18,275 respectively; metal culverts to Northfield Iron Co., Northfield, $959; Bridge 3669, 25 ft. deck on rein.-con. abutments, to A. Oddin, Grand Meadow, $4,950.

Minn., Minneapolis—Has appropriated $1,500,000 for paving. Work will be done by day labor. E. R. Dutton, asst. city engr.

S. D., Hot Springs—Grading, paving and guttering various streets, 31,300 sq.yd. concrete, to Allied Contractors, Inc., 404 Peters Trust Bldg., Omaha, Neb., $150,000. Noted Aug. 25.

Tex., Big Springs—Howard Co. grading and surfacing 34.2 mi. State Highway 1, to Womack Constr. Co., c/o R. S. Womack, Sherman, $250,734. Noted Oct. 20.

Tex., Jefferson—Marion Co. paving various streets, 18,000 sq.yd. 2½ in. vertical fiber brick, asphalt filler, on 4 in. concrete, to Panhandle Constr. Co., Lubbock, $74,340.

Tex., Livingston—Polk Co. grading and clearing 9.7 mi. State Highway 35, to S. T. Stanford, Kickapoo, $60,778. Noted Oct. 13.

Tex., Midland—Midland Co. grading and surfacing 26.91 mi. Bankhead Highway, State Highway 1, to Womack Constr. Co., c/o R. S. Womack, Sherman, $205,743. Noted Oct. 20.

Tex., Odessa—Ector Co. grading and surfacing 24.74 mi. State Highway 1, to Womack Constr. Co., c/o R. S. Womack, Sherman, $209,355. Noted Oct. 20.

Tex., Pecos — Reeves Co. grading and gravel surfacing 9.69 mi. State Highway 1 and 21.56 mi. State Highway 1 to W. E. Hamilton, Van Horn, $36,860 and $70,611 respectively. Noted Sept. 22 and Oct. 20.

Tex., Stanton—Martin Co. grading and surfacing 12.79 mi. State Highway 1, to Womack Constr. Co., c/o R. S. Womack, Sherman, $93,398; gravel to be furnished by county. Noted Oct. 20.

Okla., Okmulgee—Okmulgee Co. paving 5.8 mi. Co. Rd. Project 2, to Tiebets & Pleasant, Okmulgee, $100,000. Noted Oct. 6.

California — State Hy. Comn., Sacramento, to Northern California Constr. Co., Alturas, grading 2 mi. highway between west city boundary and Pine St. in Susanville, Lassen Co., $3,310; concrete paving 9.4 mi. highway between west boundary and 1 mi. north of Keystone, Tuolumne Co., 14,000 cu.yd. excav., $1.10, 11,500 cu. yd. concrete, $9.90, total $129,250. Noted Oct. 6.

Industrial Works

PROPOSED WORK

Conn., Hartford—Elite Waist Co., **Allyn St.**, had plans prepared by **I. A. Allen, Jr. Inc.**, archt., 904 Main St., **2 story, 90 x 100 ft.** brick and steel addition to **factory**, plain foundation, **High St. $50,000.**

Conn., Hartford—J. Jacobsen, 1074 Broad St., having plans prepared by Berenson & Moses, archts., 1026 Main St., 1½ story, 80 x 145 ft., brick, steel and concrete garage, plain foundation, Broad St.

Conn., Waterbury—G. W. Russell, College Pl., plans **1 story, 60 x 135 ft., brick and steel garage**, plain foundation. **J. S. LaDow**, 51 Leavenworth St., **archt.**

N. Y., Troy—**Fitzgerald Bros. Brewing Co.**, Rivers St., having plans prepared by Ophuls, Hill & Mc Creery, archts, and engrs., 112 West 42nd St., **altering cold storage building, brick, steel and concrete. $100,000.**

D. C., Wash.—Heckman & Miller Co. had plans prepared by E. H. Mosher, archt., Munsey Bldg., for factory, 6th St. and Rhode Island Ave., N. W. $75,000.

Va., Norfolk — Anheuser Busch, Brooke Ave., had plans prepared by Ophuls, Hill & McCreery, archts. and engrs., 112 West 42d St., New York, additions and alterations to ice plant, brick, steel and concrete. $250,000.

O., Columbus—**C. T. Dunkle Motors Co.**, 4th and Gay Sts., having sketches made **4 story, 125 x 136 ft. garage and service station, fireproof construction.**

O., Dayton—W. D. Huber, 209 North Main St., plans 3 story, 120 x 200 ft., rein.-con.

Industrial Works (Continued)

and brick garage and business building, West 4th St. $175,000. Architect not selected.

Ill., Aurora—F. J. Fidler, 16 North La Salle St., plans 1 story, brick and steel garage. $40,000. Architect not selected.
Industrial Works—

Ill., Belvidere—Belvidere Heating Co., c/o J. Myers, having plans prepared 2 story brick and steel factory $55,000. Architects name withheld.

Ill., Centralia—J. Longenfeld had plans prepared 2 story, 80 x 106 ft. garage, mill construction, $40,000. Architect withheld.

Ill., Chicago—Bronson-Canode Printing Co., 626 Federal St., plans 5 story, 50 x 142 ft. fireproof printing plant, Washington and Elizabeth Sts. $150,000. Architect not selected.

Ill., Chicago—Hannifin Mfg. Co., 621 South Kolmar Ave., takes bids in spring, 2 story, 90 x 160 ft. factory, rein.-con., brick and steel, Knox and Wellington Sts. $200,000. Private plans.

Ill., Elgin—Elgin Watch Co., 10 South Wabash Ave., Chicago, having plans prepared by Postle & Fischer, archts., 140 South Dearborn St., Chicago, 4 story, 30 x 374 ft. factory, 3 story, 40 x 432 ft. dormitory and 3 story, 100 x 150 ft. administration building, rein.-con. and brick, here, $1,000,000.

Ill., Peoria—Capitol Laundry Co., 108 South Madison St., having plans prepared by H. B. Dox, archt., Lehmann Bldg., 2 story, 50 x 150 ft. laundry, brick and steel. $50,000. N. Madigan, secy.

Ill. Peoria—Leshnick Directory Co., 514 Main St., having plans prepared by B. L. Hulsebus, archt., Jefferson Bldg., 2 story, 50 x 150 ft. printing plant, brick and steel. $100,000.

Ill., Peoria—J. C. Striebick Co., 212 South Washington St., having plans prepared 4 story, 61 x 100 ft., warehouse and office, rein.-con., and brick. $150,000. J. H. Floreth, pres. Architect's name withheld.

Wis., Hingham (Sheboygan P. O.)—P. Eernisse & Co. having plans prepared 2 story, 60 x 110 ft., brick, rein.-con. and steel garage. $40,000. Private plans.

Wis., Madison—M. P. Schneider, archt., 401 West Doty St., preparing plans for 1 story, 70 x 180 ft., brick and rein.-con., garage, warehouse and repair shop. $65,000. Owner's name withheld.

Wis., Milwaukee—Amer. Hide & Leather Co., 1320 Elston St., Chicago, having plans prepared by Lockwood, Greene & Co., archts. and engrs., 60 Federal St., Boston, Mass., for 6 story tannery and power house, rein.-con. and brick, plain foundation, Commerce St. Total including equipment $1,000,000. Noted Oct. 13.

Wis., Milwaukee—West Side Garage, 2310 Lisbon Ave., opens bids about Oct. 30, 2 story, 96 x 120 ft. garage and storage building, brick and concrete, plain foundation, Lisbon Ave. $50,000 to $60,000. Private plans.

Wis., Neenah—Dairymens Storage Co., c/o H. Krumrey, Plymouth, plans 3 story, 40 x 60 ft., cold storage plant, brick and concrete, plain foundation, here. $45,000. Architect not selected.

Ia., Shell Rock—W. M. Roe, Waverly, interested in company forming to develop hydro-electric power, here. $100,000. Holland-Ackerman & Holland, 53 West Jackson Blvd., Chicago, engrs.

Minn., Minneapolis—Murphy Transfer & Storage Co., Inc., 309 3rd Ave., N., plans 2 story, 70 x 160 ft., garage and office, brick and concrete, 4th St. and 9th Ave., N. $40,000. Architect not selected.

Kan., Council Groves—E. A. Roberts having plans prepared by C. W. Squires, archt., Emporia, 2 story 50 x 87 ft. brick and steel garage. $45,000.

Mo., Independence—Good Mom Products Co. plans 2 story, brick factory. $50,000. C. A. Birdsall, pres. Architect not selected.

Mo., Leeds—Kansas City Spiral Pipe Co., c/o E. J. Gordon, secy., Dwight Bldg., Kansas City, having plans prepared 1 story, 60 x 300 ft., steel and corrugated iron factory, here. $50,000. Architects name withheld.

Ont., Preston—E. B. Salyerds, plans to rebuild factory recently destroyed by fire. $50,000.

Mo., St. Louis—J. E. Dougherty, 127 Blow Ave., having plans prepared 2 story, 50 x 117 ft. brick and steel garage, 39th St. and McRee Ave. $45,000. Architects name withheld.

Mo., St. Louis—White Co., c/o W. C. Capen, mgr., 3442 Lindell St., having plans prepared by P. J. Bradshaw, archt., International Life Bldg., 1 story, brick and steel service station, 20,000 sq.ft. floor space, Laclede and Vanderventer Sts. $75,000.

Okla., Oklahoma City—New State Ice Co. had plans prepared by Ophuls, Hill & McCreery, archts. and engrs., 112 West 42d St., New York City, concrete, brick and steel ice plant. $300,000.

Okla., Oklahoma City—Missouri, Kansas & Texas Ry., Ry. Exch. Bldg., St. Louis, Mo., having plans prepared by A. L. Sparks, archt. c/o owner, 2 story, 45 x 600 ft., brick and steel freight depot. $90,000.

Tex., Wortham—See "Waterworks."

Ont., Brockville—E. F. Phillips Electrical Wks. Ltd., DeGaspe St., Montreal, Que., plans plant, here, cost between $2,500,000 and $3,000,000.

BIDS DESIRED

Pa., Phila.—Nov. 1, by J. E. Fieldstein, archt., 901 Walnut St., 3 story, 89 x 100 ft. rein-con., brick and steel garage and service station, plain foundation, Broad and Bainbridge Aves., for Walton Auto Supplies Inc.

O., Cleveland—Nov. 7, by Bd. Educ., East 6th St. and Rockwell Ave., steam heating plant for school, East 116th St. and Collett Ave. $150,000. W. R. McCornack, East 6th St. and Rockwell Ave., archt.

Ill., Chicago — P. Gerhardt, archt., 64 West Randolph St., receiving bids 2 story, 80 x 230 ft. auto service and sales building, concrete, steel, granite and terra cotta, 5725-31 Bway., for Kelly & McLin, c/o architect. $200,000.

CONTRACTS AWARDED

Mass., Dedham—Allen & McDonald, 110 State St., Boston, 1 story, 80 x 130 ft., concrete and brick garage, plain foundation, Eastern Ave., to Joslin & Landry, 161 Devonshire St., Boston. Noted Oct. 6 (Dedham Motor Mart).

Mass., South Boston—(Boston P. O.) W. S Langenbach, 303 Dorchester Ave., 1 and 2 story, 160 x 240 ft., brick and timber warehouse and office, plain foundation, Dorchester Ave., to Joslin & Landry, 161 Devonshire St., Boston, $100,000. Noted Dec. 16.

Mass., Springfield—Springfield Ice Co., 47 Dwight St., 1 story, 100 x 147 ft., brick and steel ice plant, to E. F. Carlson Co., 244 Main St.

R. I., Pawtucket — Fisk Drug Co., 200 Main St., 2 story, 60 x 90 ft., brick and steel plant, plain foundation, Main and Nashua Sts., to F. G. Rowley Co., 260 Central St. $40,000.

Conn., New Haven—Estate of E. Malley, 902 Chapel St., 1 story, 72 x 80 ft. brick and steel power house, plain foundation, Temple St., to Connor & Haggarty, Inc., 172 Norton St., $50,000. Noted Aug. 25.

Conn., Waterbury—H. Weyand Co., 16 Jefferson St., 3 story, 82 x 110 ft., brick and steel plant, plain foundation, Judd St., to O. Lacroix Constr. Co., 95 Bank St.

Pa., Braddock—B. Markovitz Baking Co. 3 story, 70 x 75 ft. bakery on Talbot Ave., to S. Pollock, 2550 Centre Ave., Pittsburgh; time and material basis.

Pa., Phila.—T. Berstein & Sons, Inc., 4 story, 58 x 60 ft. factory, brick, plain foundation, 1401 North 3d St., to Potts Bros. & Cooperson, 129 North 11th St., $48,000.

Pa., Phila.—Ivins Tube Wks. 1 story, brick, tile and steel mill, plain foundation, Oak Lane, Coventry and Chestnut Sts., by day labor, $250,000.

Pa., Pittsburgh—Air Reduction Co., 342 Madison Ave., New York, 2 story, brick, steel and stone plant, Ridge Ave., here, to Hughes-Foulkrod Co., 600 Oliver Bldg., $250,000. Noted Sept. 15.

Pa., Pittsburgh—Cunningham Sales Co., 510 Liberty Ave., 2 story, 85 x 100 ft. brick and stone garage and sales building to Toupet, Bell & Conley, 5814 Ellsworth Ave., $100,000. Noted Sept. 1.

Pa., Pittsburgh—Kingan & Co., 1121 Penn Ave., 4 story, 48 x 100 ft. concrete, brick and steel warehouse, to Hughes-Foulkrod Co., Oliver Bldg., $100,000. Noted Aug. 18.

Pa., Pittsburgh—North Pole Ice Co., 1218 West Carson St., 7 story, 160 x 192 ft. rein-con. and brick storage plant, to J. F. Love, Arrott Bldg., $400,000. Noted Sept. 1.

Pa. Pittsburgh—Union Ice Co., 124-126 West Ohio St., 1 story, 65 x 128 ft. brick and steel plant, Beaver Ave., to Rose & Fisher, 821 Pennsylvania Ave., $70,000.

Pa., Pottstown—Hydro United Tire Co., Pottstown, 2 story, 134 x 170 ft. rein.-con., brick and steel factory, plain foundation, to Graham & Wells, 3649 Filbert Sts., Phila., $100,000.

O., Cleveland—Simon Sign Co., c/o A. B. Meltzer, treas., 1729 East 12th St., 2 story, 43 x 120 ft., brick and steel factory, plain foundation, East 19th St. and Canton Court, to Gometz & Neshkes, 2233 East 89th St. $40,000.

O., West Park—F. and S. Paint & Varnish Co., Elmwood Rd., 3 story, 50 x 70 ft. brick and steel factory plain foundation, to G. A. Rutherford Co. 2725 Prospect Ave., Cleveland, $50,000.

Ill., Chicago—W. P. Doerr, archt., 28 East Jackson St., 1 story, 110 x 125 ft., garage, brick, stone and concrete, Princeton Ave. and 31st St., to Olson-Carson Co., 133 West Washington St., for R. Munizzo, 2904 South Wells St. $40,000. Noted Sept. 22.

Ill., Chicago—Hetzel & Co., 739 Larabee St., 4 story, 54 x 72 ft., factory, brick, concrete and stone, 1743 Larabee St., masonry and concrete to J. Rodaty, 209 South La Salle St., total $85,000. Noted Aug. 18.

Ill., Chicago — H. P. Rigger, 5514 Lake Park Ave., 1 story, 156 x 226 ft. garage, rein.-con., brick and steel, 2723-43 West Van Buren St., to H. E. Johnson, 446 East 76th St., $125,000.

Ill., East St. Louis—C. O. McCasland, 810 Chestnut St., St. Louis, Mo., 1 story, 70 x 120 ft. garage, brick, steel and concrete, 10th St. and Illinois Ave., here, to W. Sheets, 1212 Illinois Ave., $55,000.

Ill., Harvard—Cowen & Obert Garage, Crystal Lake, will build 1 story, 82 x 90 ft. garage, brick, steel and veneer tile, here, by day labor. M. A. Stafford, Harvard, archt.

Ill., Joliet—Pub. Serv. Co., 1 story, 60 x 100 ft. garage, rein.-con. and brick, to H. A. Bishop, 208 South La Salle St., Chicago, $40,000.

Wis., Eagle River—V. Krefl Mfg. Co., 3 story, 60 x 85 ft. factory, rein.-con. and brick, Main St., to H. V. Hertting, Inc., Dempsey Bldg., Manitowoc, $50,000.

Wis., La Crosse — Sisson, Sielstad, Hougen Co., 115 North Front St., 5 story, rein.-con. and brick warehouse, plain foundation, Front St., to C. W. Noble, 206 State Bank Bldg., $100,000.

Wis., Madison—T. Rosten & Co., 440 Clemens St., 1 story, 50 x 60 ft., brick, rein.-con. and steel machine shop and foundry, to G. Cnare & Sons, 2000 Jenifer, $40,000.

Wis., Milwaukee—J. Auchter, 1062 11th St., 1 story, 90 x 122 ft., brick and concrete garage, plain foundation, Oakland Ave., to R. Reisinger & Co., 464 Oakland Ave., $40,000.

Wis., Milwaukee—Ellis Lumber Co., 881 Clinton St., 2 story, 100 x 150 ft. warehouse, brick and timber, Clinton St., to S. J. Brockman, 444 Milwaukee St., $42,000, cost plus percentage basis. Noted Oct. 13.

Wis., Milwaukee—Luick Ice Cream Co., Ogden Ave. and Jackson St., 5 story, 60 x 60 ft., rein.-con. and brick factory, plain foundation, Ogden Ave., to T. Stark & Co., 425 East Water St., $75,000.

Wis., Milwaukee—S. Bodner, 546 4th St., 1 story, 62 x 154 ft., brick and concrete garage, plain foundation, 4th St., to M. Wachofsky, 539 4th St., $40,000.

Wis., Oshkosh—Fonte & Slater Co., 118 Main St., 1 story, 61 x 87 ft. garage and machine shop, rein.-con. and brick, Main St., to C. R. Meyer Son, 50 State St., $45,000.

Wis., Oshkosh—Waite Grass Carpet Co., 556 Mt. Vernon Ave., 1 story, 100 x 150 ft. warehouse, brick and timber, plain foundation, Monroe Ave., to C. R. Meyer & Son, 50 State St., $45,000.

Wis., Sheboygan — Northern Furniture Co., South Water and New Jersey Sts., 4 story, 50 x 100 ft. factory, brick, rein.-con. and steel, South Water St., to F. Geib, 1439 South 9th St., $55,000.

Industrial Works (Continued)

Minn., Minneapolis—J. Cohen, 2015 Irving Ave., S., general contract 1 story, 132 x 158 ft., brick and concrete garage, Nicolett Ave. and 14th St., to Madsen & Peterson, 646 Builders Exch. Bldg., $35,250. Total $60,000.

Kan., Lawrence—Kansas University, c/o J. A. Kimball, business mgr., 2 story, 53 x 110 ft. electric laboratory, to Eberhart Constr. Co., Salina, $35,483. Noted Oct. 6.

Kan., Parsons—Missouri, Kansas & Texas Ry., Ry. Exch. Bldg., St. Louis, Mo., 1 story, reclamation plant, to T. H. Johnson, Sedalia, Mo. $166,000. Noted Oct. 6.

Kan., Wichita—Wichita Visable Pump Co., c/o E. P. Hayes, 701 Gilbert St., will build 2 story factory by day labor. $50,000. Noted Sept. 8.

Mo., St. Joseph — Grant Motor Co, 9th and Felix Sts., 1 story, 120 x 140 ft., brick and steel garage, 10th and Francis Sts., to S. Hotchkiss, 18th and Penn Sts., $55,000. Noted Oct. 20.

Mo., St. Louis—Chester Iron & Fdry. Co., 7800 Vulcan St., 1 story, 45 x 117 ft., brick and steel foundry, to G. Moeller, 3520 Itaska St., $40,000. Noted Oct. 20.

Mo., St. Louis—B. Gustavson, 1538 Tower Grove, 1 story, 41 x 175 ft., rein.-con. and brick garage, by day labor. $45,000. Wedmeyer & Nelson, Wainwright Bldg., archts. Noted Oct. 20.

California—State Hy. Comn., Sacramento, maintenance shop, 34th and 4th Sts., to M. E. Hopper & Son, Bacon Bldg., Oakland, $56,825.

Buildings

PROPOSED WORK

Me., Saco—School—School Bd. having plans prepared by H. S. Combs, archt., 11 Lisbon St., Lewiston, 2 story, brick and steel, Main St. $150,000.

Me., Saco — Temple — Masonic Temple Assn. plans brick and steel, Thornton Ave. $150,000. Architect not announced.

Vt., Newport—High School—School Dept. had plans prepared by Walker & Walker, archts., 101 State St., Montpelier, 2½ story, brick and steel, Main St. $150,000.

Mass., Fitchburg—School—School Comn. having preliminary plans prepared by J. D. Leland Co., archts., 366 Main St., Worcester, 3 story, brick, steel and concrete, Academy and Elm Sts. $400,000.

Mass., Forest Hills (Boston P. O.)—Court House—Pub. Bldgs. Dept. Boston having plans prepared by O'Connell & Shaw, archts., 18 Boylston St., Boston, 1 story, 80 x 160 ft., brick, stone and steel, Morton St., here. $275,000.

Mass., Newton — School — School Comn. having plans prepared by Brainerd, Leeds, Kellogg & Thayer, archts., 89 Franklin St., Boston, 2 story, 60 x 240 ft., brick and steel, Walnut St., $250,000.

Mass., Springfield — Business — Tarbell Watters Co., Inc., 160 Chestnut St., plans 5 story, brick and concrete, Chestnut and Bridge Sts. $150,000. Architect not announced.

Mass., Worcester — High School — Bd. Educ. having plans prepared by J .D. Leland, archt., 41 Mt. Vernon St., Boston, brick, Grafton St. $500,000.

Conn., Hartford—Business—I. A. Allen Jr., Inc., archt., 904 Main St., soon lets contract altering and building 5 story, concrete, brick and steel addition plain foundation. Pratt St., for I. Wise, 819 Prospect Ave. $170,000.

Conn., Hartford—Business—Estate of J. J. Goodwin, 36 Pearl St., receives bids in about 10 days, 2½ story, 110 x 110 ft., concrete, brick and steel, plain foundation, Haynes St. P. Goodwin, 4 East 39th St., New York, archt. Noted Sept. 15.

Conn., Hartford—Club, etc.—Knights of Phythias Building Com. plans 4 story, brick and concrete, High St. $400,000. J. K. Baskerville, pres. Architect not selected.

Conn., Hartford—School—Sts. Cyril and Methodius Church, 69 Governor St., having revised plans prepared by H. F. Ludorf, archt., Mutual Bldg., New Britain, 2 story, 70 x 150 ft., brick, steel and concrete, Groton St. $200,000. Noted July 28.

Conn., Hartford—Y. W. H. A., 98 High St., plans 4 story. $150,000 to $175,000. Architect not announced.

Conn., New Haven—Church and School—St. Brendens Roman Catholic Church, 380 Sherman Ave., having revised plans prepared by G. A. Zunner, archt., 182 High St., Hartford, 1 and 3 story, stone and steel Whalley and Ellsworth Aves. $300,000. Noted May 26.

Conn., New Haven—High School—Bd. Educ. c/o H. M. Greist of Greist Mfg. Co., Blake St., chn.com., plans 3 story, brick and steel, Emerson and Fountain Sts. $200,000. L. W. Robinson, 42 Church St., archt.

Conn., New Haven—Temple—Masonic Hall Assn., 87 Church St., having plans prepared by Norton & Townsend, archts., 839 Chapel St., and W. T. Arnold, associated archt., Hall & Lewis Bldg., Meriden, 4 story, brick, steel and rein-con., York St. $500,000. Noted Mar. 3.

Conn., Plainfield—High School—School Comn. having sketches made by W. T. Towner, archt., 366-5th Ave., New York, 2½ story, brick and steel, at Central Village. $150,000.

Conn. West Hartford — High School — School Comrs. having plans prepared by W. T. Marchant, archt., 36 Pearl St., Hartford, 2 story, brick and steel New Britain Ave. $150,000.

N. Y., Brooklyn—Bank—Roosevelt Savings Bank, Gates Ave. between Bway and Ralph Ave., having plans prepared by C. L. Otto, archt. and engr., 15 Park Row, New York, brick, steel and stone addition, plain foundation. $150,000.

N. Y., Buffalo—High School—Bd. Educ., Telephone Bldg., plans high school. $1,700,000.

Construction News Correspondents Wanted

by Engineering News-Record

If you can spare an hour or two a day *during business hours* for getting around and calling upon contractors, engineers, architects and city departments, we would be glad to receive your application to act as our *construction news* correspondent, if you happen to live in one of the following cities:

Mobile, Ala.
Phoenix, Ariz.
Tucson, Ariz.
Ft. Smith, Ark.
Little Rock, Ark.
Pine Bluff, Ark.
Sacramento, Cal.
San Francisco, Cal.
Trinidad, Colo.
Dover, Del.
Wilmington, Del.
Jacksonville, Fla.
Augusta, Ga.
Savannah, Ga.
Council Bluffs, Iowa
Dubuque, Iowa
Muscatine, Iowa
Leavenworth, Kan.
Pittsburg, Kan.
Wichita, Kan.
Lexington, Ky.
Owensboro, Ky.
Paducah, Ky.
Shreveport, La.
Billings, Mont.
Butte, Mont.
Helena, Mont.
Omaha, Neb.
Carson City, Nev.
Reno, Nev.
Albuquerque, N. M.
Santa Fe, N. M.
Utica, N. Y.
Asheville, N. C.
Greensboro, N. C.
Wilmington, N. C.
Winston-Salem, N. C.
Bismarck, N. D.
Grand Forks, N. D.
Lima, Ohio
Ardmore, Okla.
Muskogee, Okla.
Oklahoma City, Okla.
Astoria, Ore.
Medford, Ore.
Portland, Ore.
Scranton, Pa.
Wilkes-Barre, Pa.
Williamsport, Pa.
Aiken, S. C.
Charleston, S. C.
Columbia, S. C.
Greenville, S. C.
Sioux Falls, S. D.
Galveston, Tex.
Houston, Tex.
Provo, Utah
Danville, Va.
Lynchburg, Va.
Roanoke, Va.
Spokane, Wash.
Walla Walla, Wash.
Cheyenne, Wyo.
Calgary, Alta.
Vancouver, B. C.
Halifax, N. S.
Quebec, Que.

ENGINEERING NEWS-RECORD wants a CONSTRUCTION NEWS correspondent in each of the above cities. Write your qualifications to

Alden W. Welch
Engineering New-Record, Tenth Ave. at 36th St., N. Y.

Bear in mind: you don't have to be an engineer or a writer; a live correspondent must possess energy, a conscience and some spare time during business hours.

Buildings (Continued)

N. Y., New York—Apartment—One sixty-six West 75th St. Corp., c/o R. T. Lyons, archt. and engr., 342 Madison Ave., having sketches made 16 story, brick, steel and stone, plain foundation, 164 West 75th St. $600,000.

N. Y., New York—Bath House—Had plans prepared brick, steel and concrete, concrete pile foundation, 134th St. between Lenox and 7th Aves. $250,000. Private plans.

N. J., Long Branch — Hotel — R. Sheinberg and D. Zimmerman, c/o G. and E. Blum, archts. and engrs., 505 5th Ave., New York, having sketches made, hotel, on Boardwalk. $250,000.

N. J., Somers Point—Clubhouse—H. Y. Lake Ocean City, having preliminary plans prepared by C. De Armond, archt., 22 South 15th St., Phila., 2 story, brick, stucco and hollow tile, here. $300,000.

N. J., Trenton—Dining Hall, etc.—State Hospital Comn., having plans prepared by A. B. Mills, archt., 142 West State St., dining hall and kitchen, brick, concrete and steel, at State Hospital of Insane, here. $225,000.

Pa., Reading—Hospital—Reading Hospital, c/o C. W. Bachman, 221 North 6th St., having revised plans prepared by F A. Mullinberg, archt., 1713 Sansom St., Phila., rein-con., brick and steel, plain foundation Front and Spring Sts. $400,000. Noted July 28.

Md., Baltimore—Lodge and Club—I. O. O. F., c/o J. J. Oliver, 25 North Liberty St., having sketches made by W. C. Collett, archt., 50 Broomfield St., Boston, brick and steel, North Charles St. $150,000.

Md., Baltimore — Memorial — State and City Memorial Comn., Chamber Commerce Bldg., plan 110 x 180 ft., marble and limestone, City Hall Plaza. $900,000. L. H. Fowler, 347 North Charles St., archt.

Md., Frederick—Hotel—Frederick Hotel Co., c/o H. D. Etchinson, 116 Court St., having plans prepared by F. Webber, archt., 1421 Chestnut St., Phila., 7 story, 120 x 120 ft., concrete, brick and steel, plain foundation. $250,000.

N. C., Charlotte—Church-Dilworth Methodist Church plans brick or stone. $200,000. M. Helms, Charlotte, archt.

N. C., Fayetteville—School—State having plans prepared by W. G. Rogers, Trust Bldg., Charlotte, and S. Dixon, Fayetteville, associated archts., for administration building, girls dormitory, dining room, refrigerating plant and kitchen, power plant, laundry, industrial building and residence for president, all frame, at Negro State Normal School, here. $200,000. Noted June 16.

N. C. Lenoir—School—Soon takes bids 2 story, 30 x 220 ft., concrete, brick and stone. $200,000. Benton & Benton, Wilson, archts.

Ala., Birmingham — School — Bd. Educ. had plans prepared by Miller & Martin, archts., 1900 14th Ave. 3 story, 90 x 120 ft., 44th and 45th Sts., S. $162,000.

Ala., Birmingham — School — Bd. Educ. had plans prepared by L. Welton, archt., Amer. Trust Bldg., 2 story, 120 x 120 ft., Ave. G and 17th St. $150,000.

La., New Orleans — Hospital — Baptist Hospital Com. plans hospital on Napoleon Ave., $2,000,000.

O., Canton—Market—A. B. Flory, 600 Mulberry Rd., S. E., plans 2 story, 67 x 200 ft., 5th and Cleveland Sts., N. W. $200,000.

O., Cleveland—Apartment Hotel—L. W. Kelly, Hippodrome Bldg., having plans prepared by G. B. Post & Sons, archts., Hanna Bldg., 10 story, brick, steel and concrete, plain foundation, East 107th St. and Euclid Ave. $1,500,000.

O., Cleveland—Bank—Union Trust Co., c/o A. McGwynn, Citizens Bldg., had plans prepared by Graham, Anderson, Probst & White, archts., 80 East Jackson St., Chicago, 1 story, 62 x 130 ft., brick, steel and concrete, plain foundation, East 105th St. and Pasadena Ave. $150,000.

O., Cleveland — Commercial — Cleveland Printing Co., 1104 Prospect Ave., having plans prepared by Best & Hoefler, archts., Vickers Bldg., 4 story, 60 x 180 ft., brick and concrete, plain foundation, 1205 Bolivar Rd. $200,000.

O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 3 story, 250 x 300 ft., brick, steel and concrete, plain foundation East 152nd St. and St. Clair Ave. $1,500,000.

O., Cleveland—Store and Apartment—J. Roodman and H. L. Kollen, 12001 Tuscora Ave., having plans prepared 3 story, 80 x 120 ft., brick, plain foundation, Noble Rd. and Nela View Ave. $150,000. Architect's name withheld.

O., Louisville—School—Bd. Educ. having plans prepared by Thayer & Johnson, archts., 5716 Euclid Ave., Cleveland, 2 story, 18 room, brick steel and concrete, plain foundation. $200,000.

O., Mt. Vernon—Lodge—B. P. O. E. having plans prepared by Osborn Eng. Co., archts. an dengrs., 2848 Prospect Ave., Cleveland, 3 story, brick, steel and concrete, plain foundation. $150,000.

Mich., Detroit — Apartment — Detroit Constr. Co., c/o W. Hamacher, archt., 29 Rowland Bldg., had plans prepared 4 story, 70 x 120 ft. rein.-con., brick and steel, plain foundation, Virginia Park Ave., $150,000.

Mich., Hamtramck (Detroit P. O.)—Hospital—Village, c/o J. J. Gwizdowski, archt., 4461 Russell St., Detroit, had plans prepared 2 story, rein.-con., brick and steel, plain foundation, Amens Ave., $190,000.

Mich., Hamtramck (Detroit P. O.)—School—J. G. Kastler, archt., Detroit Savings Bank Bldg., Detroit, prepared plans 2 story, 80 x 120 ft. rein.-con., brick and steel, plain foundation, $150,000. Owners name withheld.

Ill., Adeline—School—Dist. 74, c/o J. Sibert, Leaf River, plans 2 story, rein.-con., brick and stone, here. $150,000. Architect not selected.

Ill., Alton—Orphanage—Catholic Orphanage, c/o M. A. Torrent, 417 Prospect Ave., having plans prepared by Wessebecker & Hillebrand, archts., Pontiac Bldg., St. Louis, Mo., 3 story, 75 x 120 ft., rein.-con. brick and stone, $150,000. W. J. Knight, Wainwright Bldg., St. Louis, Mo., engr.

Ill., Aurora—Temple—Aurora Lodge, A. F. & M., c/o E. M. Birch, 197 West Park Ave., having plans prepared by W. Q. Bendus & Co., archts., Steinway Hall, Chicago, 5 story, 92 x 150 ft., brick, stone and steel. $250,000. Noted Sept. 15.

Ill., Bloomington—Memorial—J. McBarnes, Holder, plans 2 story, rein.-con., brick, stone and steel, here. $150,000. Architect not selected.

Ill., Centralia—Office—Affiliated Masonic Lodges, c/o R. E. Hale, plan 5 story, brick, stone and steel. $250,000. Architect not selected.

Ill., Champaign — Hospital — St. Marys Parish having plans prepared by G. Ramey, archt., 201 Stern Bldg., 3 story, rein.-con., concrete pile foundation. $150,000.

Ill., Chicago—Apartment—I. O. Ackley, 1447 East 63rd St., plans 10 story, 125 x 125 ft., fireproof, Hyde Park Blvd. $1,000,000. Achitect not selected.

Ill., Chicago—Loft—Newhouse & Benham, archts., 4630 Prairie Ave., soon takes bids 6 story, 100 x 175 ft. steel and tile, Huron St. and Fairbanks Court, for S. Bauschbaum, c/o architect. $350,000.

Ill., Chicago—Theatre—A. Gumbiner, 10 South La Salle St., plans 100 x 140 ft., rein.-con., brick and steel, Sheridan Rd. and Lawrence Ave. $1,000,000. Architect not selected.

Ill., Clinton—Sanitarium—De Witt Co. plans 3 story, rein.-con. and brick. $200,000. C. Griffin, clk. Architect not selected.

Ill., Elgin — Dormitory and Administration—See "Industrial Works."

Ill., Evanston—Apartment—P. F. Olson, archt., 127 North Dearborn St., Chicago, preparing plans 3 story, 94 x 120 ft. rein.-con., brick and stone, here. $150,000. Owner's name withheld.

Ill., Freeport—High School—Bd. Educ. having plans prepared by J. Royer, archt., Flat Iron Bldg., Urbana, 2 story, rein.-con., brick and stone. $350,000. S. E. Raines, supt.

Ill., Greenville—Office—Farmers Equity Bldg., c/o C. H. Melton, having plans prepared by M. V. Kane, archt., Bohn Bldg., Edwardsville, 2 story, 120 x 145 ft., brick, stone and steel. $150,000.

Ill., Harvey — Theater and Store — W. Voss, Amer. Moving Picture Theater, having plans prepared by F. J. Saridakis, archt., 68 West Washington St., Chicago, 3 story, 100 x 125 ft., rein.-con., brick and stone. $160,000.

Ill., McHenry—High School—Bd. Educ., c/o O. G. Treadway, supt., plans 2 story, brick and stone, rein.-con. or steel frame. $150,000. Architect not selected.

Ill., Marengo—High School—Bd. Educ., plans 2 story, rein.-con., brick and stone. $150,000. Architect not selected.

Ill., Marion—Hotel—Stock company, c/o J. I. Gunn, secy., Chamber of Commerce, plans 4 sory, rein.-con. and brick. $160,000. Architect not selected.

Ill., Saybrook—High School—Bd. Educ. plans 3 story, rein.-con., brick and stone. $150,000. R. Cheney, secy. Architect not selected.

Ill., Wheaton—College—Wheaton College having plans prepared by Wolff-Sexton-Harper-Trueax, archts., 7 West Madison St., Chicago, 3 story, 90 x 235 ft. men's dormitory, $270,000, 3 story, 70 x 115 ft. girls' hall, $85,000, 2 story, 47 x 127 ft. history and English building, $97,500, 2 story, 54 x 74 ft. library, $57,000, 3 story, 45 x 190 ft. mens dormitory, $177,000, 3 story, 45 x 180 ft. womens dormitory, $148,000, 2 story, 45 x 55 ft. administration building, $61,000, 2 story, 84 x 170 ft. gymnasium, $120,000, 2 story, 82 x 136 ft. science hall, $171,000, 3 story, 90 x 170 ft. womens dormitory, $216,000, 3 story, 45 x 160 ft. side addition to mens dormitory, $143,000, 1 story, 60 x 120 ft. chapel, $190,000, 2 story, 47 x 92 ft. academy, $72,000, 2 story, 82 x 136 ft. engineering hall, $171,500, 1 story, observatory, $20,000 and 1 story power plant, $100,000. C. H. Blanchard, pres. Noted June 3.

Wis., Albany—High School—Bd. Educ., c/o E. P. Atherton, clk., having plans prepared by J. R. and E. J. Law, archts., Strand Theater Bldg., Madison, 2 story, 70 x 85 ft., brick, rein.-con. and steel. $150,000.

Wis., Birchwood — High School — Bd. Educ., c/o N. F. Damon, secy., having plans prepared by E. Tough, archt., 24 East Mifflin St., Madison, 2 story, 60 x 185 ft., brick and rein.-con. Bonds for $150,000 voted for project.

Wis., Burlington — High School — School Bd. plans 2 story, 100 x 200 ft. brick and concrete, plain foundation. $150,000. N. Karcher, clk. Architect not selected.

Wis., Chilton—Club House, etc.—R. O. Grassold Post Amer. Legion, plans 2 story, 60 x 150 ft., brick, rein.-con. and steel. $150,000. Architect not selected.

Wis., Cudahy — Grade School — School Bd. plans 2 story, brick and concrete, plain foundation. $165.000 will mature next spring. F. H. Williams, pres. Architect not selected.

Wis., Madison—Chemistry—Bd. Regents University of Wisconsin, c/o M. E. McCoffery, secy., Administration Bldg., having plans prepared by A. Peabody, archt., State Capitol, for 4 story, 60 x 200 ft., rein.-con., steel and brick, at University. $150,000.

Wis., Madison—Church—First Church of Christ Scientist having plans prepared by F. M. Riley, archt., 24 East Mifflin St., 3 story, 54 x 126 ft., rein.-con. stone and brick. $150,000.

Wis., Madison—Church and Club House—Presbyterian Students Assn. c/o R. Riemann, 711 State St., plans 2 and 3 story, 60 x 150 ft., stone, rein.-con. and brick, State St. $150,000. Architect not selected.

Wis., Madison—Hotel—Park Hotel Co., 22 South Carroll St., plans 7 story, 50 x 500 ft., brick and rein.-con., Carroll St. $750,000. Architect not selected.

Wis., Madison—Memorial Hospital—State Bd. Control, c/o M. J. Tappens, secy., Capitol Bldg., having plans prepared by A Peabody, archt., State Capitol, 2 and 3 story, 40 x 100 ft., rein.-con. and brick, Mendota St. $350,000.

Wis., Madison—Office—Madison Bond Co., 201 Gay Bldg., plans 4 or 5 story, 65 x 130 ft., brick and rein.-con., East Johnson St., $150,000. V. H. Arnold, pres. Architect not selected.

Wis., Madison — Sanitarium — Madison Sanitarium having plans prepared by F. M. Riley, archt., Conklin Bldg., 3 story, 40 x 150 ft., rein.-con., steel and brick addition, South Madison St. $150,000.

Wis., Madison—Temple—Madison Masonic Lodges, J. Croscot, vice-pres., Madison Electric Co., 120 East Main St., having plans prepared by J. R. and E. J. Law, archts., Strand Bldg., 2 story, 60 x 85 ft., brick, rein.-con. and stone. $200,000.

Wis., Madison—Theater—M. Heiman, c/o S. Hanke Co., Bank of Wisconsin Bldg., plans 1 and 2 story, 35 x 125 ft. rein.con., steel and brick 216 State St. $250,000. Architect not selected.

Buildings (Continued)

Wis., Merrill—High and Grade Schools—School Bd. rejected bids opened Oct. 12, for addition to high school and new grade school. $190,000 and $70,000 respectively. Work will be readvertised. Parkinson & Dockendorff, Linker Bldg., LaCrosse, archts. Noted Oct. 20.

Wis., Milwaukee—Grade Schools—School Bd., 10th and Prairie Sts., having plans prepared by Van Ryn & DeGelleke, archts., 114 Grand Ave., 3 story, on Pease and Franklin Sts., and 2 story addition on Hi Mount Blvd., both brick and concrete, plain foundations, $250,000 and $155,000 respectively. Will mature next spring.

Wis., Milwaukee—School and Club—Talmud Torah Hebrew School, 726 Central St., having plans prepared by M. Fernekes, archt., 97 Wisconsin St., 2 story, brick and concrete, plain foundation, 11th and Vine Sts. $150,000.

Wis., Milwaukee—Store and Loft—Conro Estate, 425 East Water St., having plans prepared by R. Razall, archt., 114 Grand Ave., for 3 story, 80 x 110 ft., rein.-con and brick, plain foundation, Bway. $150,000.

Wis., Reedsburg—Theater—O. V. Kelly, Majestic Theater, plans 2 story, 60 x 185 ft., brick, rein.-con. and steel. $150,000. Architect not selected.

Wis., Sheboygan—Theatre—E. Hoefer, 710 North 8th St., having plans prepared by W. C. Weeks, archt., 720 Ontario Ave., 1 and 2 story, 50 x 110 ft., rein.-con. and brick, 8th and Ontario Sts. $150,000. Noted Oct. 6.

Ia., Langdon—School—Bd. Educ., having plans prepared by Keffer & Jones, archts., Masonic Temple, Des Moines, 2 story, brick, stone and rein.-con. $150,000. E. Bassett, secy.

Minn., Albert Lea—Lodge—I. O. O. F., c/o C. J. Dudley, member Bldg. Comn., plans 4 story, 100 x 122 ft., rein.-con., brick, tile and stone, Newton and Williams Sts. $175,000. Architect not announced

Minn., Duluth—Hospital—E. C. Congdon, chn. Bldg. Com. St. Lukes Hospital Assn., 901 East 1st St., opens bids about Feb. 1, 6 story, 100 x 200 ft., rein.-con., steel and brick addition, 1st St. and 9th Ave. E. $750,000. Architect not selected.

Minn., Minneapolis — Theater — Walker Pence Co., 807 Hennepin Ave., plans 8 story, rein.-con., brick, tile and stone addition, 8th St. and Hennepin Ave. $200,000. Architect not announced.

Minn., Stillwater — Community — City plans 2 story, 110 x 150 ft., rein.con., brick and tile, Olive and Chestnut Sts. $150,000. Architect not announced.

Kan., Coffeyville — High School — Bd. Educ., c/o H. E. Martin, pres., having plans prepared by A. T. Simmons, archt., 1st Natl. Bank, Bloomington, 2 story, rein.-con. and brick, stone trim. $250,000.

Kan., Emporia—Memorial—Com. State Normal Student Alumni Memorial having plans prepared by R. Gamble, archt., 1415 Fillmore St., Topeka, 3 story, brick, rein.-con. and stone. $150,000.

Kan., Goodman — High School — Rural High School Dist., C. A. Stratton, c/o Court of Appeals, Court House Kansas City, plans 2 story $150,000. Architect not selected.

Kan., Topeka—High School—Bd. Educ. having plans prepared by C. D. Cuthbert, archt., 735 Kansas Ave., 2 or 3 story, brick, stone and rein.-con., 12th and Boswell Sts. $100,000 to $150,000. Noted Sept. 8.

Neb., Hebron—Gymnasium and Auditorium—Hebron Academy, c/o W. L. Young, secy., having plans prepared by G. A. Berlinghof, archt., Orpheum Bldg., Lincoln, 2 story, rein.-con., brick and stone. $150,000.

Mo., Carthage—Jail—Jasper Co., c/o F. B. Newton, co. engr., plans 2 story, brick, steel and stone. $150,000. Architect not selected.

Mo., Kansas City—Hotel—Clark Estate Co., 3312 Bway., having plans prepared by W. W. Ahlschlager, archt., 65 East Huron St., Chicago, 12 story, brick, steel and terra cotta. $2,700,000.

Mo., Kansas City—Store and Apartment—H. Barker, 15th and McGee Sts., having plans prepared by J. G. Braecklin, archt., 604 Minnesota Ave., 2 story, 40 x 140 ft., rein.-con., brick and steel, 15th and Jackson Sts. $150,000.

Mo., St. Louis—Apartment—H. A. Jacobs (owner and archt.), Title Guaranty Bldg., soon lets contract 3 story, 88 x 125 ft. rein.-con., brick and stone. $150,000. Noted Oct. 13.

Mo., St. Louis—Hospital—St. Johns Hospital, 307 South Euclid Ave., having plans prepared by Barnett, Haynes & Barnett, archts., Century Bldg., 3 story, rein.-con., brick and stone, Kingshighway and Audubon Ave. $200,000.

Mo., St. Louis—Office and Store—Grand & Washington Real Estate Co., c/o J. C. Campbell, 104 North 7th St., having plans prepared by P. J. Bradshaw, archt., International Life Bldg., 5 story, rein.-con.. brick and stone, Grand and Washington Sts. $270,000. Noted Sept. 15.

Mo., St. Louis—High School—Bd. Educ., Bd. Educ. Bldg., having plans prepared by R. N. Milligan, archt., c/o owner, 3 story, 110 x 142 ft., rein.-con. and brick, Hartford and Wyoming Sts. $200,000.

Mo., Springfield — Temple — Ben Adhem Shrine, c/o G. Glendorf, Landers Bldg., having revised plans prepared by Heckenlively & Mark, archts., Landers Bldg., and soon takes bids 3 story, 140 x 267 ft., rein.-con. and steel, St. Louis and Kimbrough Sts. $300,000. Former bids rejected. Noted Sept. 29.

Col., Colorado Springs—Auditorium—Will take bids in November for auditorium. $300,000. C. E. Thomas, McLaren & Hetherington, 322 Hagerman Bldg., archts. Noted July 7.

Wash., Seattle—Lodge—Greater Masonic Temple Assn., Harvard and Pine Sts., plans lodge. $1,000,000.

Wash., Seattle—Office—A. H. Albertson, archt., Henry Bldg., opens bids about Jan. 1, 6 story, 136 x 175 ft., concrete and steel, 5th and Union Sts., for Metropolitan Bldg. Co., 1301 4th St. $400,000.

Wash., Tacoma — Church, etc. — First Presbyterian Church, 10th and G Sts., having sketches made by Sutton, Whitney & Dugan, archts., 1112 Rust Bldg., for 130 x 274 ft., church, parsonage, chapel and office, brick and stone, Tacoma and Division Aves., $250,000.

Cal., Glendale—Schools—Voted $260,000 bonds, eight 1 story brick and masonry, grammar schools. Architect not selected.

Cal., Long Beach — Apartment — R. H. Young and associates, 510 Long Beach Trust & Savings Bank Bldg., plan 8 or 12 story, 134 x 135 ft., Ocean Ave. and Cedar Way. $700,000. Architect not selected.

Cal., Los Angeles — Church — Immanuel Presbyterian Church, c/o C. F. Skilling, archt., 430 Bradbury Bldg., having plans prepared 4 story, 80 x 160 ft., rein.-con., terra cotta and steel, 10th and Figueroa Sts. $200,000. Main structure 6 story, Class A building, costing $500,000, will be started as soon as above is completed.

Que., Montreal—Hospital—Montreal Unit of Shriners Hospital for Crippled Children, plans hospital, $250,000. W. F. Kendrick, 1337 Spring Garden St., Phila., Pa., P. D. Gordon, 1 Church Hill Ave., and A. M. Forbes, 615 University Ave., in charge.

Que., Montreal — Hotel — Queens Hotel Ltd., Windsor St., having plans prepared by J. S. Archibald, archt., Dorchester St. W., stone, brick and steel, St. James and Windsor Sts. $200,000.

Que., Montreal—Office—Marcil Trust Co., 288 St. James St., having plans prepared by H. W. Davis, archt., 80 St. Francis Xavier St., 7 story, concrete, steel and terra cotta addition, Victoria Sq. and St. James St. $350,000.

BIDS DESIRED

Mass., Sunderland—School—Nov. 5, by A. C. Warner, chn. 8 room school. K. S. Putnam, Bement Bldg., Northampton, archt., adv. this issue.

Conn., Meriden—Church—J. A. Jackson, archt., 660 George St., New Haven, receiving bids 1 story, 65 x 125 ft., brick, steel and concrete, Center St., for St. Rose Roman Catholic Church, c/o J. J. Neale, 35 Center St. $150,000.

N. Y., Ithaca—Insectary, etc.—Nov. 10, by C. D. Bostwick, comptroller Cornell University, insectary and cold storage plant for Dept. of Pomology, New York State College of Agriculture, here. L. F. Pilcher, Capitol, Albany, state archt.; adv. this issue.

N. Y., New York — Apartment—Active Development Co., 277 Bway., 5 story, 50 x 110 ft., brick, steel and stone, plain foundation, West 71st St. $200,000. Work will be done by separate contracts. J. M. Felson, 1133 Bway., archt. and engr.

O., Canton—High School—Nov. 2, by Bd. Educ., 3 story, 144 x 226 ft., brick, steel and concrete, plain foundation, 6th St. $400,000. G. Hammond, 705 Rose Bldg., Cleveland, archt. Noted June 9.

O., Cleveland—Commercial—Euclid Prospect Co., 2422 Euclid Ave., receiving bids 5 story, brick, steel and concrete addition, plain foundation. $150,000. A. G. McKee Co., 2422 Euclid Ave., archts.

O., Cleveland—Commercial—Herco-Realty Co., c/o A. E. Keller, archt., 4501 Euclid Ave., receiving bids 4 story, brick, steel and concrete, plain foundation, East 105th St. and Euclid Ave. $150,000.

O., Lorain—School—Nov. 7, by Church of Nativity, 3 story, 66 x 90 ft., brick, steel and concrete plain foundation, J. E. Potter 802 The Arcade Cleveland, archt. Noted July 7.

Mich., Big Rapids—Armory—Nov. 1, by L. Pearson, major Q. M. C., State Militia Bd., Lansing, 2 story, 100 x 150 ft. brick, steel and stone, plain foundation here. $150,000. F. S. Forster, 34-35 Lyman Blk., Muskegon, archt.

Ill., Chicago—Dance Hall—Rapp & Rapp, archts. 190 North State St., receiving bids 3 story, 100 x 210 ft. rein.-con., brick and steel, 62nd St. and Cottage Grove Ave., for A. Kargas, 63rd St. and Cottage Grove Ave. $700,000.

Ill., Chicago — Office — Kelly-Jones Co., owners and archts, 155 North Clark St., receiving bids 2 story, 70 x 200 ft., rein.-con., brick and steel, 2436 West 15th St., $250,000.

Ill., Chicago—Office—S. Rubin, 3321 Douglas Blvd., receiving bids, 2 story, 110 x 141 ft., rein.-con., brick, steel and terra cotta, Roosevelt Rd. and Avers Ave. $150,000. Dubin & Eisenberg, 14 West Washington St., archts.

Ill., Chicago—School—T. P. Bona, c/o A. Foster, archt., 56 East Randolph St., receiving bids 3 story, 71 x 100 ft. school and 1 story, 20 x 71 ft. heating plant, brick and stone, 33d and Morgan Sts. $175,000.

Ill., Chicago—Theatre and Office—Rapp & Rapp, archts., 190 North State St., receiving bids 2 story, 108 x 125 ft., rein.-con., steel, brick and terra cotta, North Ave. and Halsted St., for Prudential Theatre Co., c/o architects. $400,000.

Ill., La Grange—High School—Nov. 7, J. C. Llewellyn, archt., 38 South Dearborn St., Chicago, 3 story, rein.-con., brick and stone addition, Lyons Twp., for Bd. Educ., here, $150,000.

Wis., West Bend—Business—A. C. Fuge Hardware Co. and J. E. Hennen, archt., Fond du Lac, receiving bids 3 story, 85 x 120 ft., brick and concrete, plain foundation. $150,000.

Minn., Duluth—Temple—Feb. 1, by W. H. Hoyt, chn. Bldg. Com. Scottish Rite Masonic Temple, 2d St. and Lake Ave., 4 story, 126 x 186 ft., rein.-con., steel and brick, London Rd. and 13th Ave. E. $500,000. G. D. Mason, 508 Griswold St., Detroit, Mich., archt. and engrs. Noted June 23

Cal., Riverside—Memorial—Nov. 15, to vote on $200,000 bonds for memorial building. H. C. Cree, city clk.

Cal., San Francisco—School—Nov. 16, by Bd. Pub. Wks., 3 story, rein.-con. addition to Mission High School, 18th St. between Dolores and Church Sts. Segregated bids will be taken for general contract $400,000, plumbing $22,000, electric work $25,000, heating and ventilating $16,000. J. Reid, Jr., city archt.

Ont., Gravenhurst—Hospital—Nov. 1, by Natl. Sanitorium Assn., 372 Spadina Ave., Toronto, 3 story, 200 room, H shaped, brick, concrete, steel and hollow tile, here. $600,000. C. S. Cobb, 71 Bay St., Toronto, archt.

BIDS RECEIVED

Mass., Roxbury (Boston P. O.)—Courthouse—Dept. Bldgs., City Hall Annex, Boston, 1 story, 78 x 166 ft., concrete, stone and steel, Morton St., from Coblo & Griffin, 46 Cornhill St., Boston, $211,000; T. O'Connor Co., Cambridge, $217,000; F. G. Coburn, 294 Washington St., Boston, $224,800.

N. Y., New York—School—Bd. Educ., 500 Park Ave., opened bids Oct. 24, P. S. 58, East 176th St. and Washington Ave., from P. J. Brennan & Son, 624 Madison Ave.,

Buildings (Continued)

$271,730; J. T. Brady & Co., Inc., 103 Park Ave., $272,840; A. W. King & Co., Inc., 81 East 125th St., $276,618. Noted Oct. 20.

N. J., Camden—School—Bd. Educ., City Hall, opened bids Oct. 17, 2 story, 106 x 207 ft., granite and terra cotta, plain foundation, 32d and Hayes Sts., from H. J. Homans, 34 South 17th St., Phila., $196,750; W. Lurker Co., 735 Cherry St., Phila., $199,400. Noted Oct. 13.

O, Toledo—High School—Bd. Educ., Administration Bldg., opened bids Oct. 19, Southside School, 2 story, rein.-con. and brick, (a) general contract, (b) electrical work, (c) heating and ventilating, (d) plumbing work, from H. J. Spieker & Co., Elm and Utica Sts., (a) $803,000; A. Bentley & Sons Co., 201-31 Belmont Ave., (a) $839,000, (c) $64,990, (d) $53,990; A. Bollin & Co., Cleveland, (a) $895,000; R. H. Winters Electric Co., 918 Jackson Ave., (b) $32,700. Noted Oct. 6.

Mich., Detroit — Hospital — Detroit Bd. Health, 1415 St. Antoine St., 2 story, rein.-con., brick and steel addition on Hamilton Blvd., from A. W. Kutche, 623 Ford Bldg., $176,973; Culbertson & Kelly, 872 West Milwaukee Ave., $179,420; Walbridge Aldinger Co., 2356 Penobscot Bldg., $132,029. Noted Oct. 6.

CONTRACTS AWARDED

Conn., Bridgeport—Parish Hall, etc.—Olivet Congregational Church, 2140 Main St., 3 story, 45 x 125 ft., brick, concrete and steel, Main St. and North Ave., to T. J. Pardy Contr. Co., 1481 Seavew Ave., $150,000. Noted Sept. 29.

Conn., Middletown — Ward — Connecticut Hospital for Insane, South Farms, 2 story, 100 x 235 ft., brick, concrete and steel, plain foundation to H. W. Lines Co., 134 State St., Meriden, $325,000. Noted Oct. 6.

Conn., New Britain—Hospital—New Britain General Hospital, 92 Grand St., 3 story, 50 x 110 ft., brick, concrete and steel additions, to H. W. Lines Co., 134 State St. Meriden, $350,000. Noted Mar. 10.

Conn., Norwich—Ward—Norwich State Hospital for Insane, 2 story, 100 x 195 ft., brick, concrete and steel, to Torrington Bldg. Co., 197 Water St., Torrington, $250,000. Noted Oct. 13.

Conn., Shelton—High School—Bd. Educ., 2 story, brick and steel, plain foundation, Hill St., and Coram Ave., to M. A. Durrschmidt, Main St., Derby, $150,000.

Conn., West Hartford—School—Kingswood School, 351 Farmington Ave., four class buildings, administration building, gymnasium, refectory and servants building, brick, steel and concrete, plain foundations, Outlook Ave., to Bent-Bartlett Co., 43 Ann St., Hartford, $600,000. Noted May 19.

Mass., Boston—Exchange—New England Telephone & Telegraph Co., 101 Milk St., 3 story, 40 x 59 ft., and 1 story, 59 x 175 ft. additions, brick, Belvidere St., to F. T. Ley & Co., 24 Milk St., $150,000. Noted Sept. 29.

Mass., Boston—Office—Harris, Forbes & Co., 35 Federal St., 11 story, concrete, limestone, brick and steel, plain foundation, Federal St., to G. A. Fuller Co., 131 State St., $350,000. Noted Aug. 4.

Mass., Dover—Library and Town Hall—N. W. Comiskey, chn com., 2 story, 40 x 140 ft., brick, stone and steel, plain foundation, Springdale Ave., to E. A. Abbott Co., 3 Park St., Boston. $150,000. Noted Mar. 3.

Mass., North Adams—Grade School—School Bldg. Dept., 2½ story, brick and steel, State St. to J. G. Roy & Sons Co., 21 Silver St., Springfield, $150,000. Noted Sept. 22.

N. Y., Brooklyn — Apartment — West Bway. Renting Corp., c/o Springsteen & Goldhammer, archts. and engrs., 32 Union Sq., New York, 5 story, 100 x 100 ft., brick, steel and stone, plain foundation, East 13th St., here, by day labor. $150,000.

N. Y., Kew Gardens (Jamaica P. O.)—Apartment—Kew Bolmer, Inc., c/o Bloch & Hesse, archts. and engrs., 18 East 41st St., New York, 4 story, brick, steel and stone, plain foundation, Queen Blvd., here, to E. Outwater, Inc., 516 5th Ave., New York, $225,000.

N. Y., New York—Apartment—Alamb Corp., 550 West 20th St., 9 story, brick, steel and stone, plain foundation, East 88th St. near 5th Ave., to T. J. Steen, 447-5th Ave., $750,000.

N. Y., New York — Apartments—Barry Bros., 391 East 149th St., two 5 story, brick, steel and stone, plain foundations, 196th St. and Morris Ave., by day labor. $150,000 each. Margon & Glaser, 2806 3d Ave., archts. and engrs.

N. Y., New York — Apartment—Demont Realty Co., c/o De Rose & Cavalieri, archts. and engrs., 370 East 149th St., 5 story, brick, steel and stone, plain foundation, Tremont Ave., by day labor. $150,000.

N. J., Atlantic City—Hotel—Marshall & Pennell, engrs., 1310 Arch St., Phila., 5 story, 30 x 75 ft. rein.-con. brick and steel addition, plain foundation, Virginia Ave. and Beach, here, to N. W. Naurer, 126 New York Ave., for P. F. Cope. $200,000. Noted Oct 6.

Pa., Homestead—Hospital—Boro. 3 story, 71 x 222 ft. and 40 x 45 ft. rein.-con., brick and steel, Hays St., to Williams & Haas, 408 Empire Bldg., Pittsburgh, $200,000. Noted Mar. 31.

Pa., Mt. Lebanon—School—School Dist. Mt. Lebanon Twp. 3 story, brick and steel, Washington Rd., to J. G. Fullman, E. E. Trust Bldg., Pittsburgh, $200,000. Noted Sept. 8.

Pa., Phila.—Apartment—J. L. Hendricks, Real Estate Trust Bldg., two 2 story, 27 x 65 ft. brick, stone and terra cotta, plain foundations, Walnut Lane and Wayne Ave., by day labor. $250,000.

Pa., Phila.—Church—Holy Name of Jesus Roman Catholic Parish, 1 story, brick, steel and stone, Kensington St., to M. Melody & Sons, 1322 Race St. $250,000. Noted Sept. 15.

Pa., Pittsburgh—Schools—Bd. Educ., Fulton Bldg., 1, 3 and 4 story, 234 x 235 ft. and 50 x 102 ft. brick and stone, Monticello and Murtland Sts., to P. H. Kelly Constr. Co., 1713 Samson St., Phila., $852,000; 2 and 3 story, 77 x 316 ft. and 61 x 66 ft., brick and rein.-con., Greenfield Ave., to A. and S. Wilson, 541 3rd Ave., cost between $300,000 and $400,000; 3 story, 130 x 240 ft., brick and steel, Perrysville Ave., to Williams & Haas, Empire Bldg., $452,522. Noted Sept. 22.

D. C., Wash.—Apartment—F. P. Milburn, Union Savings Bank Bldg., 8 story, fireproof construction, 16th St., between K and L Sts., to J. L. Parsons, Jr.. Southern Bldg., $300,000.

N. C., Durham—Schools—Bd. Educ., high school for whites and graded school for colored, fireproof construction, to Salmon, Shipp & Poe, Durham, $434,792 Noted Sept. 29.

N. C., Morgantown — Hospital — State Hospital for Insane, 2 story, 59 x 184 ft., to Goode Constr. Co. West 3rd St., Charlotte, $300,000.

Miss., Jackson — Biology — State Bond Impvt. Comn., biology building, at A. & M. College, here, to W. T. Stout, Jackson, $144,454.

O., Canton—High School—Bd. Educ.. 3 story wing to J. H. Lehman Junior High School, rein.-con., brick and steel, 14th and Oxford Sts., to Melbourne Bros., 151 Clark Bldg., $202,335. Noted Oct. 13.

O., Cleveland—Commercial and Apartment—J. Hoppert, 1263 East 187th St.. 2 story, 125 x 127 ft., brick and steel, plain foundation, 18614 St. Clair Ave., to L. Cort, 19607 Nottingham Rd., $150,000. Noted Sept. 29.

O., Cleveland—Commercial—M. Marmorstein, Natl. City Bldg., 2 story, brick, steel and concrete, plain foundation, East 69th St. and Euclid Ave., to G. A. Rutherford Co., 2725 Prospect Ave., $150,000.

O., Dayton—Theatre and Office—B. F. Keith Theatrical Assn., 1564 Bway., New York, 5 story, 165 x 200 ft., brick, steel and concrete, 1st and Main Sts., here, to W. N. Sutherland Bldg. & Contg. Co., Syndicate Trust Bldg., St. Louis, Mo., $800,000. Noted April 28.

O., Niles—Theater and Office—Simons, Brittain & English, archts., Magee Bldg., Pittsburgh, 2 story, 53 x 175 ft., brick, here, to Vasconi Bros., Sharon, Pa., for McKinley Theater Co. $150,000. Noted Aug. 18.

O., Oberlin—High School—Bd. Educ., general contract 2 story, 75 x 180 ft., brick, steel and concrete, plain foundation, to Willing Bros., Bellevue, $214,680; heating work, to Cary-Hall-Allen Co., Defiance, $6,590. Noted Sept. 29.

O., Zanesville—Y. M. C. A., 4 story, 40 x 142 ft., rein.-con. and brick, 5th and Locust Sts., to Taylor & Linn, 5th and Main Sts., $230,000.

Ill., Blue Island—Temple—Masonic Temple Assn., Calumet Lodge 716, 423 Western Ave., Chicago, 4 story, brick, rein.-con. and steel, here, to P. Olson 19 South La Salle St., Chicago, $150,000. Noted Sept. 29.

Ill., Chicago—Apartment—C. Rigler, 154 West Randolph St., 3 story, 100 x 173 ft., rein.-con. brick and steel, 1374-82 Greenleaf Ave., to J. Anderson & Son, 5723 Winthrop Ave., $150,000. Noted Oct. 20.

Ill., Chicago—Bank—Illinois Merchants Trust Co., 112 West Adams St., 21 story, 178 x 323 ft., brick, stone, steel and tile, Jackson, Clark, La Salle and Congress Sts., foundation and all masonry to H. Ericsson Co., 139 North Clark St. Total $9,000,000. Noted Sept. 8.

Ill., Cicero—Library—Lutheran Liberty Hall Corp., c/o H. E. Stevens, archt., 4231 Monroe St., Chicago, 2 story, rein.-con., brick and stone here, to H. P. Kukotz, 3404 South Union Ave., Chicago, $150,000. Noted Oct. 20.

Ill., Decatur—Apartment—Stock company, c/o C. C. Caldwell, 155 Oakdale Rd., will build 3 story, 34 x 126 ft., rein.-con., brick and steel, by day labor under supervision of L. S. Baker, archt., 1026 Macon Ave. $150,000. Noted Sept. 22.

Ill., Moline—Theatre—F. L. Cornwall, La Salle Bldg., St. Louis, Mo., 1 story, 69 x 150 ft., rein.-con., brick and stone, here, by day labor under supervision B. Cornwall, supt. $200,000. Noted Oct. 6.

Wis., Fond du Lac—Apartment—Immel Constr. Co., 200 North Main St., 3 story, 80 x 132 ft., brick and concrete, plain foundation, Forest Ave., by day labor. Cost between $125,000 and $150,000.

Wis., Milwaukee — Apartments — The Raulf Co., 428 Grand Ave., two 3 story, brick and concrete, plain foundations, Summit Ave., by day labor. M. Tullgren & Sons, 425 East Water St., archts.

Wis., Milwaukee—Business—Metropolitan Investment Co., 3d and State Sts., 4 story, mill construction, 3d St., to S. J. Brockman, 444 Milwaukee St., cost between $125,000 and $150,000.

Wis., Milwaukee — Commercial — Home Real Estate & Investment Co., 216 West Water St., 2 story, 50 x 100 ft., brick and concrete, plain foundation, West Water St., to J. L. Stanage, 3216 Vliet St., $150,000.

Wis., Milwaukee — Dental — Marquette University, 1115 Grand Ave., 4 story, 80 x 98 x 180 ft., brick and concrete, plain foundation, 16th and Grand Aves., to W. W. Oeflein, 86 Michigan St., $350,000. Noted July 28.

Wis., Milwaukee—Theater and Recreation—Teutonia Ave. Realty Co., 1110 Teutonia Ave., 2 story, 85 x 200 ft., brick and concrete, plain foundation, to Grether Constr. Co., 1121 2d St., $200,000. Noted Sept. 22.

S. D., Sioux Falls—High School—Bd. Educ. (first unit), 4 story, 78 x 178 ft., rein.-con., brick, tile and stone, 12th St. between Main and Dakota Aves., to Carlson & Snitkey, Sioux Falls, $252,000. Noted Sept. 29.

Cal., Pasadena — Hospital — Pasadena Hospital Assn., Congress St., near Pasadena St., 4 story, 100 x 120 ft., rein.-con., to W. Crowell, Chamber Commerce Bldg, $175,000. Noted May 19.

Federal Government Work

PROPOSED WORK

Mass., North Truro—Repairs—Spec. 4532—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans repairs to radio quarters, here.

N. Y., Amagansett—Radio Quarters—Spec. 4536—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans radio quarters, here.

Md., Annapolis — Deferrization Plant — Spec. 4539—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans deferrization plant, here.

D. C., Anacostia—Quarters, etc.—War Dept., c/o Constr. Quartermaster, plans additional temporary quarters and improvements, Bolling Field, here.

D. C., Bellevue—Chimney—Spec. 4534—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans chimney, here.

Va., Norfolk—Repairs—Spec. 4535—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans repairs to Marine Barracks 2, here.

Ga., Camp Benning—Buildings—War Dept., c/o Constr. Quartermaster, plans sales room, butcher shop and green grocery here.

Ky., Camp Knox—Quarters—War Dept., c/o Constr. Quartermaster, plans to convert cantonment buildings into married officers quarters.

Federal Government Work (Continued)

Ill., Chanute Field—Heating Plant—War Dept., c/o Constr. Quartermaster, plans extension to heating plant, here.

Kan., Ft. Leavenworth—Alterations to Hospital—War Dept., c/o Constr. Quartermaster, plans altering station hospital to provide officers ward.

Tex., Ft. Bliss—Quarters—War Dept., c/o Constr. Quartermaster, plans 1 set field officers quarters, at Wm. Beaumont Hospital, here.

Wash., Keyport—Tower—Spec. 4538—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans 200 ft. radio tower, here.

Cal., Eureka—Tower—Spec. 4533—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans 300 ft. radio tower, here.

Cal., Presidio—Storehouse—War Dept., c/o Constr. Quartermaster, plans storehouse, fireproof construction, at Letterman General Hospital, here.

H. T., Schofield—Hospital—War Dept., c/o Constr. Quartermaster, plans hospital at barracks here.

P. I., Ft. Mills—Storage Facilities—War Dept., c/o Constr. Quartermaster, plans storage facilities.

BIDS DESIRED

Vt., Vergennes—Monument—Nov. 22, U. S. Engineer, Room 710, Army Bldg., New York, monument, here; adv. this issue.

Mass., Boston—Dredging—Nov. 10, by U. S. Engineer, dredging Weymouth Fore River; adv. this issue.

Mass., Rutland—Buildings—Nov. 22, by Treas. Dept., Wash., D. C., construction and mechanical equipment, for extensions to administration building, construction semi-ambulant quarters attendants quarters, laundry and garage, U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt.

N. Y., Buffalo—Removal of Wreck—Nov. 1, U. S. Engineer, removal of wreck of barge from Black Rock Canal, here; adv. this issue.

N. Y., Charlotte—Removal of Wreck—Nov. 1, U. S. Engineer, Buffalo, removal of wrecked steamer from Lake Ontario, near Charlotte Harbor; adv. this issue.

Pa., Phila.—Wiring System—Nov. 9, Treas. Dept., Wash., D. C., new conduit and wiring system at U. S. Post Office and Court House, here. J. A. Wetmore, acting superv. archt.

Md., Baltimore—Mezzanine Floor—Nov. 7, Treas. Dept., Wash., D. C., mezzanine floor in U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Tenn., Memphis—Boilers—Nov. 16, by U. S. Engineer, Mississippi River Dredging Dist., P. O. Box 1017, watertube boilers; adv. this issue.

O., Cincinnati—Lock Gates—Nov. 18, U. S. Engineer, 2d Dist., lock gates for Locks 30 and 32, Ohio River; adv. this issue.

Wyo., Sheridan—Sterilizing Equipment—Nov. 15, by Treas. Dept., Wash., D. C., equipment, for U. S. Pub. Health Serv. Hospital, Ft. Mackenzie here. J. A. Wetmore, acting superv. archt.

Ark., Ft. Logan H. Root—Kitchen and Mess Hall—Nov. 10, Treas. Dept., Wash., D. C., kitchen and mess hall at U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt.

Ariz., Prescott—Mechanical Equipment—Nov. 16, Treas. Dept., Wash., D. C., mechanical equipment for 2 semi-ambulant quarters, 4 double quarters for officers, 1 double quarters for first class personnel, 1 quarters for married attendants; kitchen equipment and refrigerating apparatus for ambulant patients mess, refrigerating apparatus for general mess laundry equipment, boilers for outside sevice, etc., at U. S. Pub. Health Serv. Hospital 50, Whipple Barracks, here. J. A. Wetmore, acting superv. archt. Noted Oct. 13.

Wash., Walla Walla—Buildings—Nov. 21, Treas. Dept., Wash., D. C., construction (exclusive of mechanical equipment) 1 semi-ambulant quarters, 1 ambulant quarters, boiler house and laundry, for U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt. Noted Aug. 11.

BIDS RECEIVED

Ill., Chicago—Fire Protection System—Treas. Dept., Wash., D. C., extension to fire protection system, U. S. Pub Health Serv. Hospital, Broadview, here, from C. J. Stein, 166 East Grand Ave., $8,494; D. Harden, 3139 Indiana Ave., $8,900. Noted Oct. 13.

Ill., Chicago—Recreation Building—Treas. Dept., Wash., D. C., complete including mechanical equipment, at U. S. Pub. Health Serv. Hospital, here, from King Lumber Co, Charlottesville, Va., $89,568; C. B. Johnston Co., Chicago, $96,240; A. Miller, Chicago, $96,379. Noted Sept. 29.

La., Alexandria—Refrigerating Plant—Treas. Dept., Wash., D. C., refrigerating plant in kitchen and mess hall U. S. Pub. Health Serv. Hospital, here, from York Mfg. Co., York, Pa., $15,295 (75 days); Rentz Eng. Co. and Machine Wks., Inc., New Orleans, $20,070 (75 days); Amer. Carbonic Machy. Co., Wisconsin Rapids, Wis., $22,300 (80 days). Noted Oct. 6.

Ia., Sioux City—Mailing Vestibule—Treas. Dept., Wash., D. C., mailing vestibule in U. S. Post Office, here, from Garber & Cissel, Bethlehem, Pa., $20,000; W. A. Klinger, Sioux City, $20,845; W. MacDonald Constr. Co., Odd Fellows Bldg., St. Louis, Mo., $21,736. Noted Sept. 29.

CONTRACTS AWARDED

Tenn., Memphis—Plumbing System—Dist. Engineer, Mississippi River Dist., plumbing system in warehouse building, U. S. Dredge Depot, here, to J. U. Hull Plumbing & Heating Co., 239 South Bellevue St., 14,311. Noted Sept. 22.

Ill., Chicago—Roads and Walks—Treas. Dept., Wash., D. C., roads and walks, at U. S. Pub. Health Serv. Hospital, Broadview, here, to Warner Constr. Co., 106 North La Salle St., $89,584. Noted Oct. 20.

Ill., Chicago—Sprinkler System etc.—Treas. Dept., Wash., D. C., sprinkler system in U. S. Pub. Health Serv. Hospital, Broadview, here, to C. J. Stein, 166 East Grand Ave., $17,966.

Ark., Little Rock—Repairing Dikes—U. S. Engineer, repairing dikes near here, to Miller-Butterworth Co., South Trust Bldg., $8,125.

Miscellaneous

PROPOSED WORK

Swimming Pool — Brocton, Mass. — Sprague Neighborhood Center, c/o W. Hatch, Kennedy Bldg., having plans prepared by W. F. Jackson, archt., 231 Main St., concrete and tile swimming pool and building to house same $30,000.

Binder Stone, etc.—New York, N. Y.—H. Bruckner, pres. Bronx Boro., Municipal Bldg., opened bids Oct. 24, furnishing and delivering (1) 2,000 cu.yd. binder stone, (2) 300 ton asphaltic cement, (3) 300 ton limestone dust or other suitable inorganic dust, from Calvin Tompkins Co., 30 Church St., (1) $1.83 per cu.yd., total $3,660; New York Trap Rock Corp., 101 Park Ave., (1) $2.20, $4,400, (3) $8.85, $2,655; Lanigan Bros., Bronx River and 165th St., (1) $3.25, $6,500; Standard Oil Co. of New York, 26 Bway., (2) $33.50, $10,050; Barrett Co., 17 Battery Pl., (3) $40.80, $12,240; F. Meyer & Co., 25 Church St., (3) $8, $2,400; Soper Whitman Co., (3) $9.25, $2,775. Noted Oct. 20.

Pier—Coney Island (Brooklyn P. O.) **N. Y.**—Dept. Docks & Ferries, Pier "A," North River, New York, plans recreation pier, here, 1,700,000 cu.yd. sand fill, 5,120,000 ft. B.M. timber, 110,000 ton rock and 4,000 rein.-con. piles.

Docks and Terminal—Camden, N. J.—Phila. & Reading R.R., Reading Terminal, Phila., having preliminary plans prepared by M. Baker, archt., Reading Terminal, Phila., 2 story, docks and terminal, rein.-con. and steel, concrete pile and wood pile foundation, Kaighns Ave., for railroad and ferries. $2,000,000.

Underground Cable — Trenton, N. J.—Trenton & Mercer Co. Traction Co., 510-517 Amer. Mechanic Bldg., plans underground cable in Lincoln Ave. $25,000.

Derrick—Phila., Pa.—Baldwin Locomotive Co., Broad and Spring Garden Sts., receiving bids traveling derrick, 50 ton.

Steel—Phila., Pa.—Reading R.R., Reading Terminal receiving bids 500 ton structural steel for drawbridge in Atlantic City, N. J.

Equipment—Richmond, Va.—J. G. Skelton, Railway & Power Bldg., receiving bids furnishing six 36 in. gauge 11 x 16 in. cylinder, Vulcan or Porter saddletank locomotives, A. S. M. E. boilers.

Elimination of Grade Crossings—Dayton, O. — Plans approved raising Miami River Bridge 2 ft. and eliminating 17 crossings of Pennsylvania System, 20 crossings of Baltimore & Ohio R.R., 3 crossings of Cleveland, Cincinnati, Chicago & St. Louis R.R., 5 crossings of Cincinnati, Lebanon & North Ry., 5 crossings of Detroit, Toledo & Ironton R.R. $23,250,000. Forty per cent of cost to be borne by city and balance by above mentioned railroads. G. Baker, city engr. Noted Jan. 27.

Ditch Digging Machine — Brownwood, Tex.—Receiving bids ditch digging machine, new or second hand, or contractors to furnish machine and dig ditches. E. W. Hall, chn. Sewer Comn., adv. this issue. e

Hydro Electric System—Watford, Ont.—Warwick Twp. plans hydro electric lighting and power distribution system. $50,000. Address N. Herbert, Watford.

BIDS DESIRED

Refined Asphalt—Brooklyn N. Y.—Nov. 2, by E. Riegelmann, boro pres., Boro Hall, furnishing and delivering 140,000 gal. refined asphalt liquid form to Municipal Asphalt Plant, 7th St. Basin, Gowanus Canal.

Grader—Watertown, S. D.—Nov. 1, by F. Bannister, aud. Codington Co., one 8-ft. blade grader.

BIDS RECEIVED

Parkway and Sea Wall—Winthrop, Mass.—State Metropolitan Park Comn., 18 Tremont St., Boston, 3,000 ft. parkway and sea wall, (1) concrete, (2) concrete with masonry face, from D'Onfro Bros., 700 Main St., Leominster, (1) $241,053; J. W. Duff, Inc., 146 Summer St., Boston, (1) $245,585, (2) $281,557; J. F. White, 43 Calvin St., Boston, (1) $247,553, (2) $281,653; A. G. Tomasello, 68 Devonshire St., Boston, (2) $265,148.

Oil Tank Wagons—Phila., Pa.—For fuel oil tank wagons, from Good Rds. Mchy. Co., Inc., Land Title Bldg., $485. Noted Oct. 13.

Piling and Lumber—New Orleans, La.—For (1) creosoted piling, (2) creosoted materials, from Colonial Creosoted Co., Bolagula (1) $34,175, (2) $21,331; Gulfport Creosoted Co., Gulfport, Miss., (1) $35,581; Creosoted Gulf Materials Co., Gulfport, Miss., (1) $36,298, (2) $20,966; Creosoted Timber Co., Hattiesburg, Miss., (2) $20,815.

Incinerator — Montreal, Que. — For incinerator plant from Atlas Constr. Co., 37 Belmont St., $256,600. Harris Generator Co., Nashville, Tenn., cost plus percentage basis. Noted Sept. 29.

CONTRACTS AWARDED

Dock Wall, etc.—Buffalo, N. Y.—Pub. Wks. Comn., Municipal Bldg., dock wall Sect. 2 from Jersey to Maryland Sts. to Great Lakes Dredge & Dock Co., Morgan Bldg., $149,500; dock wall and channel improvement in Buffalo River west of Ohio St. Bridge, to Cleveland Eng. & Constr. Co., 778 The Arcade, Cleveland, $112,000. Noted Oct. 20.

N. Y., New York—G. A. Whalen, comr. Plant & Structures, Municipal Bldg., Vehicular roadway on easterly upper deck of Manhattan Bridge, to Vulcan Rail & Constr. Co., Grand St., Brooklyn, $259,600. Noted Oct. 20.

Inorganic Dust—New York, N. Y.—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and delivering 1,500 ton inorganic dust, to E. Myer & Co., 25 Church St., $11,145. Noted Oct. 13.

Stadium—Canton, O.—Concrete stadium, seating capacity 2,700, 14th and Oxford Sts., N. W., to Melbourne Bros. Co., 121 Clark Bldg., $23,152.

Tract Development—Osborn, O.—Osborn Removal Co. moving entire town of 200 buildings to new site 1½ mi. south of here, to Sheeler & Sons Co., Grand Theater Bldg., Columbus, $125,000. Noted Nov. 18.

Garbage Incinerator—Duluth, Minn.—For 2 story, 50 x 60 ft. concrete and brick incinerator plant, 12th Ave. W, and waterfront, to Nye Odorless Crematory Co., Macon, Ga., $41,500. Noted Sept. 8.

Tunnel—Seattle, Wash.—Bd. Pub. Wks., tunnel for George Creek Plant of Skagit River Development, to R. C. Storrie & Co., Crocker Bldg., San Francisco, $2,203,865. Unit bids may be obtained by writing Engineering News-Record. Noted Oct. 20.

OFFICIAL PROPOSALS

Bids: Nov. 2.

Sewer Construction

Monroe, La.

Sealed bids will be received by the City Council of the City of Monroe, Louisiana, up to eleven (11) o'clock, a.m., Wednesday, Nov. 2, 1921, for the construction of sanitary and storm sewers, according to plans and specifications now on file in the office of R. S. Reynolds, City Engineer.

Bids will be received on the work as a whole, or separately, under the following subdivisions:

(A)—General contract for sanitary sewers.
(B)—General contract for storm sewers.
(C)—Furnishing castings.
(D)—Furnishing concrete pipe.
(E)—Constructions of pumping stations.

The work includes about twenty-six (26) miles of 8 inch laterials and about six (6) miles of trunk sewer from 10 inch to 36 inch, in the sanitary system, and about one and one-half (1½) miles of storm sewers, 24 inches to 78 inches in diameter, together with all man-holes, flush-tanks, inlets, etc.

Plans and specifications may be secured from the office of the City Engineer, upon the deposit of $15.00 to secure the return of same in good condition.

Each bid must be accompanied by certified check in the amount of five per cent (5%) of the amount of the bid to guarantee good faith of bidder and the execution of contract and bond, which deposit will be returned to all unsuccessful bidders upon rejection of their bids and to the successful bidder when contract and bond are properly executed.

The right is reserved to the City of Monroe to reject any and all bids.

All bids shall be addressed to the undersigned.

P. A. POAG.
Secretary, City of Monroe, Louisiana.

Bids: Nov. 1

Tunnel Construction

River Rouge, Mich.

Sealed proposels for the construction of a tunnel under River Rouge at Jefferson Avenue, Village of River Rouge, Wayne County, Mich., will be received by the Village of River Rouge, Michigan, at the office of the undersigned George Jerome, Village Engineer, 1329-31-32 Majestic Building, Detroit, Michigan, up to and including Tuesday, November 1st, 1921, at six o'clock p.m. Which bids will be publicly opened by the Council of the Village of River Rouge, Mich., at the Municipal Building, No. 9 South Dearborn Avenue, at eight o'clock p.m. on November 1st, 1921.

The tunnel will be 13 feet, inside diameter; 350 feet long.

Its average depth below water level will be about 50 feet.

The work will also include the construction of the vertical shafts at each end of the tunnel and the laying of certain water mains through the tunnel, etc.

Plans, specifications, forms of proposals, etc., can be secured at the Village Engineer's office as above stated upon depositing the sum of Five Dollars.

A certified check in the amount of $7,000.00, made payable to the Treasurer of the Village of River Rouge, must accompany each bid. The right to reject any and all bids is expressly reserved by the Village, also to waive any formal defects in the bids when deemed for the best interest of the Village.

GEORGE JEROME,
Village Engineer.
1329-31-32 Majestic Bldg.
Detroit, Mich.

Dated October 4th, 1921.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Tuesday morning (10 o'clock) can usually be published in the issue out the following Thursday. Special price for Official Proposals, 40 cents a line.

Bids: Nov. 9.

Bridge Construction

Trenton, N. J.

Notice is hereby given that sealed bids will be received by the State Highway Commission of New Jersey for the following:

Two steel I-beam trolley bridges at Bridge 3, M. P. 8.2-W and Bridge 4, M. P. 7.1-W, 17'0" and 17'4" spans, 5'0" wide with concrete abutments and wing walls, steel I-beam frames to support single line of trolley tracks; on Route No. 12, Section 4, near Washington, Franklin Township, Warren County.

Bids for the above will be received at the office of the State Highway Commission, Broad St. Bank Building, Trenton, N. J., on Wednesday, November 9th, 1921, at 11:00 a.m. and opened and read immediately thereafter.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and office of Charles A. Mead, Bridge Engineer, 790 Broad St., Newark, N. J., and may be inspected by prospective bidders. Plans will be furnished on deposit of ten ($10.00) dollars for these bridges upon application to Charles A. Mead, Bridge Engineer, 790 Broad St., Newark. Bids must be made on the standard proposal forms in the manner designated therein and as required by the 1921 specifications, same to be enclosed in sealed special addressed envelopes bearing the name and address of bidder and the number of the bridge on the outside, and must be accompanied by a certified check drawn to the order of the State Treasurer for not less than ten (10%) per cent of the amount of the bid, provided that said certified check shall not be less than $500.00 nor more than $20,000.00 and be delivered at the above place on or before the hour named. Copies of the standard proposal form and special addressed envelopes will be furnished upon application to Charles A. Mead, Bridge Engineer, 790 Broad St., Newark, N. J. Bids not enclosed in special envelope will be considered informal and will not be opened.

Each bidder must accompany his bid with a certificate from a surety company duly authoried to do business in this State, stating that such surety company will provide said bidder with a bond in such sum as is required in and in accordance with the specifications, conditioned for the faithful performance of the provisions of the contract and specifications.

By order of the State Highway Commission.

A. LEE GROVER,
Chief Clerk.

Bids: Nov. 11.

Coal and Ash Handling Equipment

Milwaukee, Wis

Sealed proposals for furnishing and erecting a building to be erected on Jones Island, City of Milwaukee, coal and ash handling machinery and equipment, will be received by the Sewerage Commission of said City at its offices in the City Hall until 1:30 o'clock p.m., Nov. 11, 1921, at which time and place during the session of the said Commission, the proposals will be publicly opened and read.

The work to be done includes the following:

Coal and Ash Handling Machinery consisting of Track Hopper Equipment, Crusher, Elevator, Conveyors, Skip Hoist, Motors and Controllers, Storage Bins, Spouts, Automatic Scales, Ash Cars and Track, and appurtenances complete.

The time allowed for the completion of this contract shall be twelve (12) months from the date of the Chief Engineer's notice to begin work.

The liquidated damages for not completing the work within the time specified shall, for each day in excess therof, be twenty-five ($25.00) dollars.

Each proposal submitted must be accompanied by a cash deposit or, in lieu thereof, by a certified check drawn upon a National or State Bank or Trust Company located in the City of Milwaukee, and to the order of the "Sewerage Commission of the City of Milwaukee" to the amount of two per cent of the proposal made.

Specifications and blank forms of proposal can be obtained and detailed plans examined at the office of the Sewerage Commission in the City Hall.

The Sewerage Commission of the City of Milwaukee reserves the right to reject any and all bids submitted, or to accept any bid should the Commission deem it to the interests of the City so to do.

JOHN H. FOWLES,
Secretary.

Countersigned:
LOUIS M. KOTECKI,
Comptroller.

Bids: Nov. 16.

Two Arch Bridges

Little Rock, Ark.

Sealed proposals will be received up to 2:30 p.m., of Wednesday, Nov. 16, 1921, by the Commissioners of the Broadway-Main Street Bridge District, at their office in the Moore & Turner Building, in the City of Little Rock, Arkansas, for the construction of the superstructures two reinforced concrete arch bridges across the Arkansas River. All of the substructure work except that for the approaches, has been completed for the two bridges. One of these bridges will be located at Main Street, and the other at Broadway Street, in the City of Little Rock, Arkansas. All bids will be opened in public at place and hour named.

Bids may be submitted either on a lump sum basis or upon a cost plus fee basis.

All bids are to be placed in envelopes, sealed and then marked thereon, "Proposal for Broadway-Main Street Bridges."

The Commissioners reserve the right to reject any or all bids.

The Contractor will be paid in cash upon Engineer's estimate, approved by the Board, as the work progresses.

Each bid is to be accompanied by a certified check made payable to the Broadway-Main Street Bridge District on some responsible bank for a sum equal to two and one-half per cent of the amount of the bid or bids.

For further information, instructions to bidders, plans specifications and forms for proposals, address:

GEORGE W. DONAGHEY, Chairman,
JUSTIN MATTHEWS, Secretary.
Broadway-Main Street Bridge,
District of Little Rock,
Pulaski County, Ark.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 7	Idlewood (Warrensville P. O.), O.	Oct. 20
Nov. 7	Perrysburg, N. Y.	Oct. 27
Nov. 7	Cloquet, Minn.	Nov. 3
Nov. 8	Parsons, Kan.	Nov. 3
Nov. 9	Greenburgh, N. Y. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 9	Girardville, Pa. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 10	New York Adv. Oct. 6 to Nov. 3.	Oct. 6
Nov. 10	New Braunfels, Tex.	Oct. 13
Nov. 10	Anthony, Kan.	Nov. 3
Nov. 12	Brooklyn, N. Y.	Nov. 3
Nov. 14	Syracuse, N. Y.	Oct. 27
Nov. 21	Detroit, Mich.	Nov. 3

SEWERS

Bids Close		See Eng. News-Record
Nov. 7	Rochester, Minn.	Nov. 3
Nov. 8	London, Ont.	Oct 13
Nov. 8	Emporia, Kan.	Nov. 3
Nov. 9	Reading, Pa. Adv. Oct. 27 and Nov. 3.	Oct. 20
Nov. 12	Charlotte, N. C. Adv. Nov. 3.	Nov. 3
Nov. 15	Rutherford, N. J.	Oct. 20
Nov. 15	Petersburg, Ind. Adv. Nov. 3.	Nov. 3
Nov. 17	Warren, O.	Nov. 3
Nov. 22	Wallington, N. J.	Oct. 20
Nov. 29	Newark, N. J.	Oct. 27

BRIDGES

Bids Close		See Eng. News-Record
Nov. 7	Washington	Oct. 27
Nov. 8	North Carolina	Oct. 27
Nov. 8	St. Joseph, Mo.	Nov. 3
Nov. 9	Washington, N. J. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 9	Mays Landing, N. J. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 10	New York, N. Y.	Nov. 3
Nov. 11	Detroit, Mich.	Oct. 27
Nov. 12	Buffalo, N. Y.	Oct. 27
Nov. 15	Oklahoma City, Okla.	Oct. 6
Nov. 15	Illinois	Nov. 3
Nov. 16	Little Rock, Ark. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 18	Dayton, O.	Oct. 20
Nov. 19	Ohio	Nov. 3
Nov. 21	Sheboygan, Wis. Adv. Nov. 3.	Nov. 3
Nov. 29	Shadesville, O.	Nov. 3

RAILWAYS

Bids Close		See Eng. News-Record
Nov. 9	New York	Oct. 20

EXCAVATION AND DREDGING

Bids Close		See Eng. News-Record
Nov. 7	Fairmont, Minn.	Nov. 3
Nov. 8	Portage, Wis.	Nov. 3
Nov. 9	Red Oak, Ia.	Oct. 27
Nov. 10	Phila., Pa. Adv. Nov. 3.	Nov. 3
Nov. 17	Carrollton, Ill.	Oct. 27
Dec. 1	Riverton, Wyo.	Oct. 20
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Bids Close		See Eng. News-Record
Nov. 7	Louisiana	Oct. 27
Nov. 7	Long Island City, N. Y.	Nov. 3
Nov. 7	Phila., Pa.	Nov. 3
Nov. 8	Wyoming	Nov. 3
Nov. 8	Warren, Minn.	Oct. 27
Nov. 8	Stockton, Cal.	Oct. 27
Nov. 8	Bay City, Tex.	Oct. 27
Nov. 8	North Carolina	Oct. 27
Nov. 8	Robinson, Ill.	Nov. 3
Nov. 8	Cassopolis, Mich.	Nov. 3
Nov. 8	Joliet, Ill.	Nov. 3
Nov. 9	Mays Landing, N. J. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 9	Titusville, Fla.	Oct. 27
Nov. 9	Davenport, Ia.	Nov. 3
Nov. 10	Ishpeming, Mich.	Oct. 27
Nov. 10	Missouri	Oct. 27
Nov. 10	Missouri	Nov. 3
Nov. 10	Brooklyn, N. Y.	Nov. 3
Nov. 11	Missouri	Oct. 27
Nov. 11	Birmingham, Ala.	Nov. 3
Nov. 12	San Marcos, Tex.	Nov. 3
Nov. 12	Charlotte, N. C. Adv. Nov. 3.	Nov. 3
Nov. 12	Missouri	Nov. 3
Nov. 14	California	Nov. 3
Nov. 14	East Moline, Ill.	Nov. 3
Nov. 15	Okmulgee, Okla.	Nov. 3
Nov. 15	Illinois	Nov. 3
Nov. 15	West Branch, Mich.	Nov. 3
Nov. 16	Leon, Ia.	Nov. 3
Nov. 17	West Virginia Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 17	Warren, O.	Nov. 3
Nov. 18	North Carolina	Nov. 3
Nov. 19	Ohio	Nov. 3
Nov. 22	Pennsylvania Adv. Nov. 3.	Nov. 3
Dec. 7	Salina, Kan.	Nov. 3

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Nov. 7	Cleveland, O.	Oct. 27
Nov. 10	Peoria, Ill.	Nov. 3
Nov. 18	Columbus, O.	Nov. 3

BUILDINGS

Bids Close		See Eng. News-Record
Nov. 7	Bridgman, Mich.	Oct. 20
Nov. 7	La Grange, Ill.	Oct. 27
Nov. 7	Lorain, O.	Oct. 27
Nov. 8	Osawatomie, Kan.	Oct. 20
Nov. 8	St. Louis, Mo.	Nov. 3
Nov. 9	Newton, Mass.	Nov. 3
Nov. 9	Newark, N. J.	Nov. 3
Nov. 9	Minneapolis, Minn.	Nov. 3
Nov. 9	Parsons, Kan.	Nov. 3
Nov. 10	Ithaca, N. Y. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 10	Evanston, Ill.	Nov. 3
Nov. 15	Greensboro, N. C.	Nov. 3
Nov. 16	San Francisco, Cal.	Oct. 27
Nov. 18	Columbus, O.	Nov. 3
Nov. 22	Lawrence, Kan.	Nov. 3
Nov. 23	Toledo, O.	Nov. 3
Nov. 23	Wilson, N. C.	Nov. 3
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Nov. 7	Mezzanine Floor—Baltimore, Md.	Oct. 27
Nov 8	Tower and Tank—Cape Fear, N. C.	Oct. 20
Nov. 9	Wiring System—Phila., Pa	Oct. 27
Nov. 10	Kitchen and Mess Hall—Ft. Logan H. Roots, Ark.	Oct. 27
Nov. 10	Dredging — Weymouth, Mass. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 10	Dredging, Boston, Mass.	Oct. 27
Nov. 15	Monument — Plattsburg, N. Y. Adv. Oct. 20 to Nov. 3.	Oct. 20
Nov. 15	Vessel—St. Louis, Mo. Adv. Oct. 20 to Nov. 3.	Oct. 20
Nov. 15	Equipment — Sheridan, Wyo.	Oct. 27
Nov. 16	Mechanical Equipment — Prescott, Ariz.	Oct. 27
Nov. 16	Watertube Boilers — Memphis, Tenn. Adv. Oct. 20 to Nov. 3.	Oct. 27
Nov. 16	Chimney—Bellevue, D. C.	Nov. 3
Nov. 16	Derrick Boat — Nashville, Tenn. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 18	Lock Gates—Cincinnati, O. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 18	Mailing Vestibules—Portsmouth, O. Adv. Nov. 3.	Nov. 3
Nov. 21	Buildings — Walla Walla, Wash.	Oct. 27
Nov. 21	Dredging Plant—San Francisco, Cal.	Nov. 3
Nov. 22	Buildings—Rutland, Mass.	Oct. 27
Nov. 22	Monument—Vergennes, Vt. Adv. Oct. 27 and Nov. 3.	Oct. 27
Nov. 23	Tower—Keyport, Wash.	Nov. 3
Nov. 23	Tower—Eureka, Cal.	Nov. 3
Nov. 23	Scows—Pittsburgh, Pa. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 28	Dredging—Baltimore, Md. Adv. Nov. 3.	Nov. 3
Nov. 30	Dredging—Savannah, Ga.	Nov. 3
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6

MISCELLANEOUS

Bids Close		See Eng. News-Record
Nov. 8	Garbage Disposal—Charleroi, Pa.	Nov. 3
Nov. 8	Coal Crusher, Conveyor — Lincoln, Neb.	Nov. 3
Nov. 8	Suspension Supports—Lincoln, Neb.	Nov. 3
Nov. 11	Coal and Ash Handling Machinery and Equipment — Milwaukee, Wis.	Oct. 20
Nov. 11	Traveling Crane, etc.—Camden, N. J. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 28	Dike—Revere, Mass. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 28	Piles—Portland, Me. Adv. Oct. 27 and Nov. 3.	Nov. 3
Nov. 30	Stadium—Chicago, Ill.	Oct. 20
Dec. 23	Oil Tanks and Boilers—New Orleans, La. Adv. Nov. 3.	Nov. 3

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Mass., Montague—Plans extending mains; cost between $75,000 and $100,000. H. D. Bardwell, clk.

N. C., Greensboro—Plans 15 mi. c.i. mains, 4 concrete filters and dam on Reedy Fork River. $300,000. P. C. Painter, Greensboro, engr.

O., Cleveland—Making plans filtration plant, pumping station and reservoir. $10,000,000. A. V. Ruggles, City Hall, engr.

O., Martins Ferry — Retained J. N. Chester, engr., Union Bank Bldg., Pittsmrugh, to make investigation and report for improving water supply and electric light systems.

Kan., Neodesha—Voted $150,000 bonds to improve waterworks and electrical plant. Black & Veatch, Mutual Bldg. Kansas City, Mo., engrs. Noted Sept. 22.

Kan., Oberlin—Making plans waterworks, reservoir, dams and pipe lines, disposal plant and complete system sanitary sewers; paving several streets. E. T. Archer & Co., 209 New England Bldg., Kansas City, Mo., engrs.

Minn., Braham—Plans well and tower. $20,000. W. N. Ostrom, city clk.

Tex., Ft. Worth—Making plans disposal plant. $750,000. D. L. Lewis, city engr. J. B. Hawley, Burton Bldg., Ft. Worth, and E. E. Sands, Houston, consult. engrs.

Tex., Wichita Falls—Wichita Falls Irrigation Dist. plans system to supply city and irrigate 100,000 acres, includes reservoir, 150,000 acre-ft. $2,450,000. R. A. Thompson, ch. engr Irrigation Project. See Item under Dams.

Okla., Purcell—Making plans waterworks and electrical improvements. Benham & Mullergren, Firestone Bldg., Kansas City, Mo., engrs.

Ont., Westboro—City of Ottawa plans 8 mi. c.i. mains, mostly 6 in. $165,000. A. F. Macallum, City Hall, Ottawa, engr.

BIDS DESIRED.

N. Y., Brooklyn—Nov. 12, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, mains and appurtenances in Surf Ave., Kings Highway, 75th and 78th Sts., here.

N. Y., Greenburgh—Nov. 9, by Scarsdale Bd. Water Comrs., Village Hall, Popham and Post Rds., Scarsdale, steel standpipe, here; G. W. Field, clk.; adv. this issue.

Pa., Girardville—Nov. 9, high pressure fire system, 2 mi. 6, 8 or 10 in. mains. F. H. Shaw, engr.; adv. this issue.

Waterworks (Continued)

Mich., Detroit—Nov. 21, by Bd. Fire Comrs., Wayne and Larned Sts., mechanical and electrical equipment for high pressure pumping station on Randolph St., 3 electrically driven centrifugal pumps, transformers, motor generators, oil circuit breakers, bus and cell structure, control switchboards, control grids signal system, etc. Smith, Hinchman & Grylls, 710 Washington Arcade, engrs.

Minn., Cloquet—Nov. 7, mains, pump and motor, power line and pumping station. $25,000. J. Wilson, 1st Natl. Bank Bldg., Duluth, engrs. Noted Sept. 8.

Kan., Anthony—Nov. 10, by city, one 150 hp. water tube boiler, one 300 kw. steam engine generating unit, one jet condenser and one 100 ft. chimney. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs.

Kan., Parsons—Nov. 8, by City Clerk, removing present c.i. force line and constructing new supply line from Neodesha River, laying concrete and c.i. pipe, hydrants, etc. Burns & McDonald, 400 Interstate Bldg., Kansas City, Mo., engrs.

Que., Verdun—Receiving bids for 2 electric pumps, 5,000,000 gal. capacity each. A. E. Gyshens, City Hall, engr.

CONTRACTS AWARDED

Mass., West Springfield (Springfield P. O.)—For 7,600 ft. c.i. mains, to A. Cefalo Co., Bellevue Ave., Rosindale.

Pa., Harrisburg—For filters, etc., Contr. A, to Whiting Turner Constr. Co., 403 Stewart Bldg., Baltimore, Md., $375,588; 2,000 lin.ft. 36 in. c.i. pipe, etc., Contr. C, to Meadow & McCarthy, 2425 State St., $40,160; grandstand, etc., Contr. D, to J. H. Wickersham, Brennan Bldg., Lancaster, $10,945. Noted Oct. 27.

Mich., Detroit—For 700 ft. c.i. drains and connections from filtration plant to Jefferson Ave., to Gass-Thurston Co., 13851 Can Dyke Ave., $32,600.

Wis., Cedarburg—For hydrants and valves, to J. B. Clow & Sons, 544 South Franklin St., Chicago, $3,916 c.i. pipe, to Amer. Cast Iron Pipe Co., 712 Plymouth Bldg., Minneapolis, Minn., $29,667; wood stave pipe, to Amer. Wood Pipe Co., $1,408; tank and tower to Pittsburg-Des Moines Steel Co., 38 South Dearborn St., Chicago, $5,000; drilling well, to W. L. Thorne, Platteville, $9,560. Noted Sept. 8.

Wis., West Allis—For 5,200 ft. 24 in. c. i. mains, etc., in National Ave from Arnould to 47th Aves. and 47th Ave. from National to Lapham Aves., from Mid-West Constr. Co., 209 Grand Ave., Milwaukee, $10.25 for mains, $80 each for manholes, Mankato Constr. Co., Mankato, Minn., $10.43, H. Hohensee, Ludington Ave., Wauwatosa, $12,79; meter pit, from W. H. Halsey & Sons, 172 Mason St., Milwaukee, $8,460, Mankato Constr. Co., Mankato, Minn., $8,500, Wenzel & Henock, 498 27th St., Milwaukee, $12,978. Noted Oct. 13.

Wis., Milwaukee—For 3 pumps for Riverside Pumping Sta., to Allis Chalmers Mfg. Co., West Allis, $641,500. Noted Sept. 29.

Wash., Seattle—Mains in Westlake Ave., N., to S. A. Moceri, Thompson Bldg., $24,605. Noted Oct. 27.

Que., Montreal—For three 30,000,000 gal. pumps to Dominion Eng. Wks. Ltd., Lachine, $76,500. Noted Oct. 6.

Sewers

PROPOSED WORK

Minn., Westbrook—Making plans sanitary sewerage system. $30,000. W. E. Buell & Co., 205 Davidson Bldg., Sioux City, Ia., engrs.

Kan., Oberlin—See "Waterworks."

Kan., Salina—Making plans laying 10-20 in. vitr. tile sewers. $26,000. W. Theisner, Salina, engr.

Wash., Spokane—Takes bids about Dec. 1, for sewers, $387,000. A. D. Butler, city engr

Wash., Yakima—Plans to complete sewerage system. $80,000. C. F. Wilson, city engr.

Ont., London—Having plans prepared for sewage disposal plant. $300,000. Prices wanted on all materials and equipment. H. A. Brazier, city engr.

Ont., Westboro—City of Ottawa plans 10 mi. sanitary sewerage system, 8 in. up, $32,700. A. F. Macallum, City Hall, Ottawa, engr.

BIDS DESIRED

N. C., Charlotte—Nov. 12, by Bd. Comrs., 70,000 ft. 5-8 in. sewers. J. Firth, City engr.; adv. this issue.

O., Warren—Nov. 17 by Director Pub. Serv. 2.3 mi. South Pine St. and River Ave. Outlet, rein-con., vitr. and segmental block, 36 in. and smaller sizes. $100,000. W. S. Harvey, Warren, engr.

Ind., Petersburg—Nov. 15, 10.5 mi. vitr. clay sanitary sewers and disposal works. E. E. Watts, Farmers Natl. Bank Bldg., Princeton, consult. engr.; adv. this issue.

Wis., Stevens Point—W. L. Bronson, city clk., taking bids sewer cleaning machine.

Minn., Rochester — Nov. 7, sanitary sewers, (a) 9,589 lin.ft. 6-12 in. pipe, 300 cu.yd. rock excav., pump house equipment, 450 ft. 10 in. overflow line, etc.; (b) 111,647 ft. 15-24 in. pipe, 600 cu.yd. loose excav., 300 cu.yd. solid rock excav. and 2 double line inverted siphons. $75,000. C. H. Armstrong, city engr. Noted Sept. 1.

Kan., Emporia—Nov. 8, by City Clerk, Imhoff tank, contact and sludging beds, automatic dosing equipment, sewer work, 2,300 cu.yd. excav., 57 cu.yd. rein.-con., 135 cu.yd. plain concrete in tank and sludging bed, 6,000 ft. 8, 10 and 12 in. pipe, etc. A. Smith, city engr.

BIDS RECEIVED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Oct. 26, sewer in 13th Ave., etc., from F. L. Paino, Woodhaven, $4,003, Peace Bros. Inc., 20 Main St., Flushing, $4,608, Green Contg. Co. 734 Vernon Ave., Astoria, $4,757; Waldron St., etc., from Seaside Contg. Co., 193 Beach 108th St., Rockaway Beach (a) $66,517, (b) $62,079, F. Spinella, 6102 18th Ave., Brooklyn, (b) $62,502, J. F. Clancy, 460 Lockwood St., Astoria, (b) $66,794. Noted Oct. 20.

N. Y., New York—H. Bruckner, pres. Bronx Boro, Municipal Bldg., opened bids Oct. 26, sewer in La Salle and Crosby Aves. from Anita Constr. Co., 2975 Marion Ave., (a) $66,972, (b) $78,240; J. Sigretto, Woodhaven, (a) $67,611, (b) $67,711; Rico & Ganey, (a) $70,043; J. J. B. La Marsh, Inc., 1510 Appleton Ave., (b) $64,414; Litchfield Constr. Co., 280 Madison Ave., (b) $67,475. Noted Oct. 20.

N. J., North Arlington—Passaic Valley Sewerage Comrs., 128 Market St., Newark, part of Sect. 26, North Arlington River Crossing, from F. S. Wardwell Co., South Ext., Stamford, Conn., $35,225; Merritt & Chapman Derrick & Wrecking Co., 17 Battery Pl., New York, $37,900; Bay State Dredging & Contg. Co., East Boston, Mass., $55,110. Noted Oct. 6.

Mich., Detroit—For (1) Bates St. Sewer, Sect. 6, (2) Six Mile Rd. Sewer, Sect. 8, (3) Livernois Sewer, Bourke Ave. Arm, (4) Livernois Sewer, Puritan Ave. Arm, (5) Stimpson Ave. Sewer, (6) East Wyoming Sewer, Grand River Ave. Arm, (7) Lateral 3521, (8) Lateral 3522, (9) Lateral 3538 (10) Lateral 3545, from Jaynes & Affeld, 1208 Ford Bldg., (1) $107,772, (2) $107,991; J. A. Mercier, 216 Hammond Bldg., (1) $117,514, (2) $105,596, (6) $32,165; R. A. Mercier, 6 Campau Bldg., (1) $130,622, (3) $27,143, (4) $23,070, (5) $31,618; R. H. Hidey Co., 400 Penobscot Bldg., (2) $96,991; G. R. Cooke, 1260 Penobscot Bldg., (3) $28,418; Langley & Barton, 1604 Pennsylvania Ave., (3) $20,983; C. M. Davis, 400 Penobscot Bldg., (4) $22,817, (6) $36,235; C. R. Lennane, 809 Union Trust Bldg., (4) $20,960; (10) $7,000; R. D. Baker, 1631 Elmhurst Ave., (5) $32,959; W. Porath, 1410 West Grand Blvd., (5) $29,697; J. Connelly, 610 Lincoln Bldg., (6) $37,397; Western Constr. Co., 1208 Ford Bldg., (7) $23,492, (8) $13,990, (9) $17,361; Oakwood Constr. Co., 165 Ford Blvd., (7) $22,998, (9) $15,988; Boston & Errington Co., 108 Buhl Blk., (7) $20,287, (8) $11,900, (9) $12,496; Liberty Constr. Co., 917 Detroit Savings Bank Bldg., (8) $13,890; S. Gustin & Co., McLean Ave., (10) $7,250; A. Rossi, 3447 St. Aubin Ave., (10) $7,593. Noted Oct. 27.

CONTRACTS AWARDED

N. Y., S. I., St. George—C. D. Van Name, pres Richmond Boro, temporary sanitary sewer in Clove Ave. from Staten Island Ry. to point about 6 ft. north of Fingerboard Rd., etc., to Gross Contg. Co., 233 Bway., New York, $40,785. Noted Oct. 20.

O., Cleveland—Sewer in Waterson Ave., to W. MacDowell & Son, 10319 Miles Ave., $17,435; Dodge Court and East 111th St., to C. Hadded, c/o Sewer Contr. Exch., $7,293; Lardett Ave., to Yahya Bros., Independence Rd., $4,716. Noted Oct. 20.

Wis., Cedarburg—Sewers and disposal plant, to Brogan & Schaefer, Green Bay, $91,139.

Wis., Madison—For 12 new sludge beds at disposal plant 80 lin.ft. reinforcing and 4,775 cu.yd. drain tile, to J. F. Icke, Washington Bldg., $23,950.

Wis., Milwaukee—For 1,526 ft. iron and vitr. sewers in Lincoln, Hayes, Western, Forest Home and 27th Aves., to Wenzel & Henock, 498 27th St., $2.69 per ft. and $1.49 per ft. for subdrains.

Ia., Burlington—For 1218 in. glazed tile sewers in Osborne St., to M. W. Daly, 1017 North Central Ave., $2.605 per lin.ft., total $35,000. Noted Oct. 13.

Bridges

PROPOSED WORK

N. Y., Buffalo—Plans 1,200 ft. steel and concrete bridge (with either swing or lift span in center for navigation), over Niagara River between Ferry St. here and Ft. Erie, Ont., Canada. $3,000,000. J. W. Van Allen, Ellicott Sq., comr.

Wis., Prescott—Prescott Bridge Co. having plans prepared and soon takes bids 600 ft. concrete and steel bridge over St. Croix River. $125,000. H. Fiedler, pres. Toltz, King & Day, Pionner Bldg., St. Paul, Minn., engrs.

Minn., Minneapolis—Plans 800 ft. concrete bridge, over Mississippi River, 14th Ave., S. $1,000,000. F. W. Cappelin, city engr.

Wash., Aberdeen—Having plans for steel bridge across Wishkah River. $100,000. J. Allen, Olympia, state highway engr.

Tex.—Belton-Bell Co., making plans rein.-con. bridges and culverts on Highway 2C, between here and Williamson Co. line, $68,276; 6,000 cu.yd. grading approaches, reconstructing bridges and culverts on Highway 2C, 745 cu.yd. rein.-con., 60,000 lb. reinforcing steel, etc., $48,483. All above to replace structures recently destroyed by flood. S. J. Treadway, Temple, co. engr.

BIDS DESIRED

N. Y., New York—Nov. 10, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., steel viaduct with appurtenances in West 134th St., 12th Ave. to 200 ft. easterly.

North Carolina—Nov. 18, by State Hy. Comn., Raleigh, bridges and culverts on State Project 511, Old Project 561, Caswell Co., 976 cu.yd. concrete, 114,250 lb. reinforcing, 1,710 ft. untreated timber piles, etc., $35,000; on State Project 525, Davidson Co., 1,116 cu.yd. concrete, 185,380 lb. reinforcing, 4,245 ft. untreated timber piles, etc., $45,000. C. M. Upham, state highway engr.

Illinois—Nov. 15, Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, 5 bridges, on Sects. 1-B, 1-C and 1-D, Route 37, Jefferson Co., 2,022 cu.yd. concrete, 106,130 lb. steel, C. Older, ch. highway engr.

Ohio—Nov. 19, by Dept. Highways and Pub. Wks., Columbus, bridges in following counties:

Adams Co., Sect. "D" West Union-Sinking Springs Rd., $61,801; Licking Co., Sect. "G" Newark-Mt. Vernon Rd., concrete, $10,400; Sect. "G" Newark-Mt. Vernon Rd., $26,357; Sect. "G" Newark-Mt. Vernon Rd., repairs to bridge, $4,556. L. C. Herrick, dir. highways.

O., Shadesville—Nov. 29, by Comrs. Franklin Co. (Columbus) 890 ft. concrete bridge, to have 9 arches, 24 ft., over Scioto River, here. $319,000. C. C. Lattimer, Columbus, co. engr. Noted Oct. 20.

Wis., Sheboygan—Nov. 21, bascule bridge over Sheboygan River on 8th St.; adv. this issue. Noted Aug. 25.

Mo., St. Joseph—Nov. 8, by Buchanan Co., 125 ft. rein.-con. bridge, 36 ft., Mitchell Ave. $26,187. J. D. Mohler, Court House, engr.

BIDS RECEIVED

North Carolina—State Hy. Comn., Raleigh, rein.-con. bridges and culverts and steel bridges on State Project 513, Nash Co., from Roanoke Iron & Bridge Wks., Roanoke, Va., $40,149, J. A. Kreis, Holston Bank Bldg., Knoxville, Tenn., $40,805,000. J. E. Lane & Co., Altavista, Va., $41,720. Noted Oct 13.

Florida—State Rd. Dept., Tallahassee, rein.-con. bridges and culverts on (1) Propect 11, Rd. 1, in Duval, Nassau and Baker Counties, (2) Projects 21, 22 and 24, State Rd. 1, Columbia and Baker Counties, (3) Project 23, State Rd. 1, between Baldwin and Jacksonville, Duval Co., (4) on State Rd. 2, Project 33, from Burnetts Lake to Gainesville, Alachua Co., (5) on State Rd. 4, Project 32, from Duval Co. line north through Callahan, Nassau Co., (6) on State Rd. 2, Project 26, from Lake City north to Suwannee River, Columbia Co., to Clayton-Mitchell, Thomasville, Ga., (1) $23,463, (2) $13,618, (3) $23,225, (5)

Bridges (Continued)
$35,487, (6) $11,836; Luten Bridge Co., West Market St., (4) $26,534. Noted Sept. 29 and Oct. 13.

CONTRACTS AWARDED

Pa., Pittsburgh—For steel bridge over Pennsylvania R.R. tracks, on Island Ave., to Ft. Pitt Bridge Wks., House Bldg., $25,695.

Ala., Tuscaloosa—W. S. Keller, state highway engr., Montgomery, superstructure steel bridge over Warrior River between here and Northport, to Virginia Bridge & Iron Co., Roanoke, Va., $131,550; 5 concrete piers for above, to J. A. Peterson, Bell Bldg., Montgomery, $47,229. Noted Oct. 27.

North Carolina—State Hy. Dept., at div. office Asheville, rein.-con. bridges and culverts on State Project 557, Madison and Yancey Counties, to O'Brien Constr. Co., Balsam. $64,447. Noted Oct. 6.

North Carolina—State Hy. Comn., at div. office Wilmington, rein.-con. bridges and culverts on State Project 517, Columbus Co., to Cornell, Young & Co., 4th Natl. Bank Bldg., Macon, Ga., $54,317; State Project 622, Robeson and Columbus Counties, to L. A. Chitwood, 1109 Price St., Columbia, S. C., $53,500; State Project 623, Bladen Co., to Powell Paving & Constr. Co., Palmetto Bank Bldg., Columbia, S. C., $28,670; State Project 541, Pender Co., to Cornell, Young & Co., 4th Natl. Bank Bldg., Macon, Ga., $41,430; structural and rein.-con. bridges, rein.-con. culverts on State Project 596, Cumberland and Sampson Counties, to Roanoke Bridge & Iron Co., Roanoke, Va., $23,930. Noted Oct. 27.

Ia., Council Bluffs—Pottawattamie Co. 51 box culverts and extensions, 38 circular and 1 c.i. pipe culvert, 4 pony trusses and 4 I beams, to Wickham Bridge & Pipe Co., 302 Commercial Natl Bank Bldg., $143,075.

Minn., Kellogg—Bridge 3618, steel spans concrete flooring 20 ft. roadway on rein.-con. foundation, over Zumbro River, near here, to Minneapolis Bridge Co., 1035 Metropolitan Life Bldg., Minneapolis, $48,840. Noted Oct. 20.

Dams

PROPOSED WORK

N. C., Greensboro—See "Waterworks."

Kan., Oberlin—See "Waterworks."

Tex., Wichita Falls—Wichita Falls Irrigation Dist. plans 2 dams for water supply and irrigation project, main one 50 mi. north of here across Wichita River, $1,300,000; other diversion dam 25 mi. north of here, $750,000. R. A. Thompson, ch. engr. and genl. mgr. Irrigation Project. See item under Waterworks.

Utah, Price—Price River Irrigation Dist., c/o C. R. Marcusen, to vote on $100,000 bonds for rein.-con. dam. W. W. Jones, Price, engr. McGonagle & Ullrich, Deseret Bank Bldg., Salt Lake City, consult. engrs. Noted May 12 under Excavation & Dredging.

Railways

PROPOSED WORK

Ontario—Temiskaming & Northern Ontario Ry., North Bay, had surveys made for extension from Cochrane to Newport. $3,500,000. S. B. Clement, North Bay, ch. engr.

Excavation and Dredging

BIDS DESIRED.

Pa., Phila.—Nov. 10, by G. F. Sproule, dir., Dept. Wharves, Docks and Ferries, 550 Bourse Bldg. dock dredging at Piers 82 and 84, South Delaware River, Schedule C, also dredging Schuylkill River, Schedule D; adv. this issue.

Wis., Portage—Nov. 8, by Columbia Co. Farm Drainage Bd., at office H. V. Tennant, engr., Portage, Drain 16, 10,000 ft. 8-12 in. tile.

Minn., Fairmont—Nov. 7, by Martin Co. Judicial Ditch 18, 13,650 ft. 10-22 in. tile, etc., $16,696; Judicial Ditch 25, 14,400 ft. 12-30 in. tile, etc., $24,422; Judicial Ditch 82, 64,150 ft. 6-34 in. tile, 19,925 cu.yd. excav., etc., $49,656; Judicial Ditch 101. 37,868 ft. 6-26 in. tile, $33,992. H. C. Nolte, Co. aud.

BIDS RECEIVED

N. Y., Tompkinsville—M. Hulbert, com. Docks, Pier "A" foot of Battery Pl., New York, opened bids Oct. 27, dredging (1) 142,000 cu.yd. at Piers 6 to 11, between Arrietta St. here, and Congress St., Stapleton, Contr. 1723, (2) 65,000 cu.yd. at Piers 6 to 11 between Arrietta St. here, and Congress St., Stapleton, Contr. 1724, (3) 19,000 cu. yd. at Piers 12 and 13 between Congress and Water Sts., Stapleton, Contr. 1725, (4) 201,000 cu.yd. at Piers 15 to 18 between Canal St., Stapleton and Simonson Ave., Clifton, Contr. 1726, (5) 78,000 cu.yd. at Piers 15 to 18 Canal St., Stapleton and Simonson Ave., Clifton, Contr. 1727, from G. H. Breyman & Bros., 17 Battery Pl., New York, (1) $39,050, (2) $16,250, (3) $5,700, (4) $55,275, (5) $19,500; New Jersey Shipbuilding & Dredging Co., 50 Broad St., New York, (1) $50,982, (2) $15,519, (3) $8,208, (4) $67,586, (5) $14,625; Great Lakes Dredge & Dock Co., 17 Battery Pl., New York, (1) 64,610 (3) $9,880, (4) $91,455; Morris & Cummings Dredging Co., 17 State St., New York, (1) $82,928, (2) $19,500, (3) $8,303; Columbia Dredging Corp., 30 Church St., New York, (2) $11,700, (5) $14,040; H. Du Bois Sons Co., 17 State St., New York, (2) $15,600, (5) $18,720. Noted Oct. 20.

Minn, Warren—Marshall Co. opened bids Oct. 25, Judicial Ditch 30, 298,965 cu.yd. excav., from Union Drainage Co., Crookston, $0.11 per cu.yd.; D. A. Foley & Co., Aitkin, $0.1155; Strom, Vogeness & House, Cary, $0.1175. Noted Oct. 13.

Wash, Olympia—Thurston Co. draining 2,000 acres overflow land, from Pacific Coast Paving Co., Perkins Bldg., Tacoma, cash $44,050, bonds $50,250; Parker & Schramm, Portland, cash $60,000, bonds $67,428.

CONTRACTS AWARDED

Florida—State Rd. Dept. Tallahassee, excavating canal along proposed fill of Choctawhatchee River Bridge Approach to W. A. Donahoe, Perry, $32,000. Noted Oct. 20.

Wis., Beaver Dam—H. E. Krueger Seed Farm, 35,000 ft. 6, 8 and 12 in. concrete and vitr. drain tile, to Reichenbach Drainage Co., Clyman, $27,500.

Kan., Holton—Straight Creek D. D. 2, c/o C. E. Chrader, secy., open ditch work to W. Spencer, Spring Branch Rd., Independence, Mo., $30,000. Noted Oct. 13.

Minn., Austin—Mower Co., Judicial Ditch 7, material to Natl. Sewer Pipe Co., Webster City, Ia., $12,305, labor to Isakson & Carr, Waseca, $7,398. Noted Oct. 20.

Tex., Beaumont—Jefferson Co. drainage ditches in D. D. 6, 1,000,000 cu.yd. excav., to Lake Arthur Dredging Co., Beaumont, $183,459.

Streets and Roads

PROPOSED WORK

Fla., Eustis—Plans paving 7 mi. various streets and drives, 14 to 20 ft., probably sand asphalt, $80,000. I Randolph & Co., Barnett Bldg., Jacksonville, engr.

Fla., Green Cove Springs—Voted $150,000 bonds for paving, laying sewers and repairing water and light plants.

Fla., Starke—Bradford Co. voted $550,000 bonds to pave 25 mi. highway from Alachua to Marion Counties, and 15 or 20 mi. lateral roads, probably asphalt. Engineer not named.

O., Bridgeport—Nov. 8 to vote on $175,000 bonds to pave National Rd., brick on concrete. R. Sykes, city engr.

O., Cleveland—Plans paving East 9th St. from Woodland to Lakeside Aves., East 14th St. from Euclid to Prospect Aves., East 17th St. from Euclid to Lakeside Aves., East 18th St. from Euclid to Superior Aves., East 18th St. from Euclid to Central Aves., East 19th St. from Euclid to Superior Aves., East 21st. from St. Clair to Payne Aves., East 22nd St. from Euclid to Central Aves., East 30th St. from St. Clair to Woodland Aves. R. Hoffman, City Hall, engr.

Ill., Beardstown—Making plans paving various streets, vitr. brick and asphalt on concrete. $138,000. Goodell & Millard, Beardstown, engrs.

Wis., Viroqua—Plans 1.2 mi. concrete paving, curbing and guttering Rock Ave., Decker St. and West Bway., 20-22 ft. $35,000. Engineer not selected.

Ia., Davenport—Bd. Supervs. Scott Co., opens bids about Nov. 9. grading and paving 3.5 mi. Davenport-Jambril Rd. from end of present paving to county line at Wapsipinicon River. $140,000. J. M. Malloy, Co. engr. Noted April 28.

Ia., Missouri Valley—Plans paving 60 blocks various streets and 20 blocks alleys. $150,000. H. S. Faith, clk. Engineer not announced.

Minn., Fergus Falls—Otter Tail Co. plans new roads in 1922. $207,400. A. L. Flygare, Fergus Falls, engr.

Kan., Downs—Making revised plans and takes bids after first of year paving 32 blocks. Benham & Mullergren, Firestone Bldg., Kansas City., Mo., engrs. Noted Sept. 1.

Kan., Oberlin—See "Waterworks."

S. D., Watertown—Coddington Co. plans gravel surfacing 22 mi. road from here to Henry. $45,000. F. Bannister, and State Hy. Dept., Pierre, engrs.

Missouri—State Hy. Dept., Jefferson City, plans 7.733 mi. road from Rogersville eastward, State Aid Project 20,112, Webster Co., 31,542 cu.yd. earth excava. and 264.3 cu.yd. concrete masonry, etc., $25,994; 7.247 mi. road from Mexico eastward and westward, State Aid Project 20,95, Audrain Co., 22,224 cu.yd. earth excav., 9,154 cu.yd. borrow, 302.8 cu.yd. concrete masonry, etc., $33,595; 2.14 mi. road west of Warrenton, State Aid Project 20.68, Warren Co., 13,553 cu.yd. earth excav., 9,020 cu.yd. borrow, 61 cu.yd. concrete masonry, etc., $25,757. A Graham, state highway engr.

Mo., Osceola—St. Clair Co. making plans grading and surfacing roads, macadam. $30,000. L. L. Griggs, Osceola, engr.

Tex., Karnes City—Karnes Co. making plans grading, gravel surfacing and bituminous topping State Highway 9, Kenedy Rd. Dist. 4. Cost between $250,000 and $300,000. O. N. Powell, Co. engr.

Utah—State Rd. Comn., Salt Lake City, opens bids about Dec. 1, concrete surfacing 11 mi. road between Price and Castle Gate, concrete or bituminous. Carbon Co. $400,000. H. C. Means, state highway engr.

Utah—State Rd. Comn., Salt Lake City, opens bids about Dec. 10, surfacing 15.5 mi. road, concrete or bituminous. Juab Co $525,000. H. C. Means, state highway engr.

Utah—State Rd. Comn., Salt Lake City, opens bids about Feb. 1, gravel surfacing 30.5 mi. road between Levan and Millard Co. line, Juab Co. $350,000; concrete or bituminous concrete surfacing 6.67 mi. Smithfield Cross Roads, Cache Co., $210,000; concrete surfacing 1.35 mi. road through Springville, Utah Co. $50,000. H. C. Means, state highway engr.

Cal., San Francisco—Made plans 15,980 lin ft. concrete curbing and 300,540 sq.ft. asphaltic concrete paving, on Mission Terrace. M. M. O'Shaughnessy, city engr.

Cal., Stockton—San Joaquin Co. making plans improving 4.7 mi. French Camp Rd. from Brennan Corner to Stanislaus Co. line. $54,500. F. E. Quail, co. engr.

Ont., Ottawa—Soon takes bids paving, curbing and guttering Armstrong St. from Parkdale to Garland Sts, 6,000 sq.yd. asphalt on concrete. $30,000.

Ont, St. Thomas—Plans to pave Mary, Hiawatha and Mitchell Aves., asphalt, concrete, $50,000. Prices wanted on materials. W. N. Miller, City Hall, engr.

Ont., Toronto—York Twp. plans paving Pinewood Ave., Graham and Kilbarry Rds., bituminous macadam. $14,156. Sidewalks on Northcliffe Blvd., High St., Park and Runnymede Rds., Bicknell, Castleton, Coleridge, Lavina, Norval, Royal and Vimy Ridge Aves., 80,000 sq.ft .concrete. $23,451. F. Barber, 40 Jarvis St., engr.

BIDS DESIRED

N. Y., Brooklyn—Nov. 10, by E. Reigelmann, boro pres., Boro Hall, repaving roadway of Union St. from Hoyt St. to Gowanus Canal, grade 1 grade pavement.

N. Y., Long Island City—Nov. 7, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., grading Van Pelt St. from Queens Blvd. to Skillman St.; repaving Lawrence St. from Bway. to Flushing Creek, Rockaway Blvd. from 90th Ave. to Elderts Lane, sheet asphalt.

Pennsylvania—Nov. 22, by State Hy. Dept., Harrisburg, reconstructing roads in Indiana, Clearfield, Bradford and McKean Counties, L. S. Sadler, comr.; adv. this issue.

Pa., Phila.—Nov. 7, by F. H. Caven, dir. Pub. Wks., grading Chelwynde Ave., $10,000, 20th St., 67th and 68th Aves., $25,000; paving Ashdale St., $15,000, Weymouth St., $12,000, 2nd St., $18,000; paving, grading and repaving York Rd., $35,000; 26,724 cu.yd. excav., 1,118 sq.yd. vitr. brick, 7,660 sq.yd. asphalt, 340 sq.yd. granite block, 2,672 sq.yd. concrete base. furnishing and applying 40,000 gal. Class A bituminous material, furnishing and delivering 6,500 ton crushed stone. F. C. Dunlap, City Hall, engr.

North Carolina—Nov. 18, by State Hy. Comn., Raleigh, clearing, grading and topsoiling 14.85 mi. State Project 511, Old Federal Aid Project 561, Caswell Co., 30 acres clearing, 68,900 cu.yd. excav., 3,000 cu.yd. rock excav., 39,000 cu.yd. topsoiling and 12,700 sta.yd. overhaul, etc., $46,000; clearing, grading and paving 10.24 mi.

Streets and Roads (Continued)

State Project 525, Davidson Co., 5 acres clearing 53,600 cu.yd. excav. and borrow. 6,480 cu.yd. rock excav., 2,258 ft. 15-24 in. concrete or corrugated metal pipe, 101,670 sq.yd. concrete or asphaltic paving, etc., $340,000; grading and paving 11.7 mi. State Project 532, Guilford Co., 37,600 cu.yd. excav., 3,200 cu.yd. rock excav., 1,255 ft. 15-24 in. concrete or corrugated metal pipe, 123,065 sq.yd. concrete or asphaltic paving, 610 cu.yd. concrete, 71,620 lb. reinforcing, etc., $395,830; clearing, grading, topsoiling and bridging 10.89 mi. State Project 501, Old Project 555, Alamance Co., 9 acres clearing, 35,500 cu.yd. excav., 1,530 ft. 15-30 in. concrete or corrugated metal pipe, 28,750 cu.yd. topsoiling, 194 cu.yd. concrete, 20,540 lb. reinforcing, 570 ft. untreated timber piles, etc., $33,000; grading and paving 5.22 mi. State Project 504, Old Project 546, Alamance Co., 6,100 cu.yd. excav. and 54,730 sq.yd. concrete or asphaltic paving, $165,000. C. M. Upham, state highway engr

N. C., Charlotte—Nov, 12, by Bd. Comrs., 208,000 sq.yd. paving and 37,000 sq.yd. cement sidewalks. J. Firth, city engr.; adv. this issue.

Ala., Birmingham—Nov. 11, by Comrs. Jefferson Co., surfacing with 8 in. cinders, shale or chert, 11 mi. road from Mulga to Port of Birmingham, $20,000; 10 mi. Warrior-Robbins Rd., $16,000; 5 mi. road from Trussville to Acmar, $9,000; 5 mi. road from Oak Grove to Lock 17 Rd., $8,000. C. J. Rogers, co. engr.

Ohio—Nov 19, by Dept. Highways and Pub. Wks., Columbus, grading, bridges, culverts and paving roads in following counties:

Henry Co., Sect. "A" Toledo-Napoleon Rd., 3.35 mi., waterbound macadam, $46,864; Columbiana Co., Sect. L"C-1" Youngstown-East Liverpool rd., 1.59 mi., brick, $67,012; Sect. "A" Lisbonville-Salineville Rd., 0.971 mi., brick with macadam bern, $37,830; (if state furnishes brick) $22,810. L. C. Herrick, dir. highways.

O., Warren—Nov. 17, by Director Pub. Serv., regrading, recurbing and repaving 3,925 ft. Market St. from North Park Ave. to tracks of Baltimore & Ohio R. R., asphaltic concrete, bithulithic cement, tar macadam or asphaltic macadam, $140,000; grading, curbing and paving 5,450 ft. Youngstown Ave. from Pleasant Ave. to city limits, vitr. brick, wood block, sheet asphalt, asphaltic concrete, bithulithic cement, concrete, tar macadam or asphaltic macadam, $120,000. W. S. Harvey, Warren, engr.

Mich., Cassopolis—Nov. 8, by State Hy. Dept. at office Bd. Rd. Comrs. Cass Co. (Cassopolis), grading 6.398 mi. road in Cass and St. Joseph Counties. F. F. Rodgers, Lansing, state hy. comr.

Mich., West Branch—Nov. 15, by State Hy. Dept. at office Bd. Rd. Comrs. Ogemaw Co. (West Branch) grading and surfacing 19.28 mi. Federal Aid Project 53, Sects. A, B, C and D, 63,648 cu.yd. excav., 180,977 sq.yd. gravel, in Ogemaw and Arenac Counties. F. F. Rodgers Lansing, state highway comr.

Illinois—Nov. 15, Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 4.55 mi. Route 2, Sect. 24, Fayette Co., 4.82 mi. Route 2, Sect. 25, Fayette-Marion Co., 4.4 mi. Route 2, Sect. 26, Marion Co., 4.52 mi. Route 2, Sect. 27, Marion Co., 4.34 mi. Route 2, Sect. 28, Marion Co., 3.98 mi. Route 2, Sect. 30, Marion-Washington Co., 4.53 mi. Route 2, Sect. 31, Washington Co., 3.29 mi. Route 2, Sect. 32, Washington Co., 2.76 mi. Route 2, Sect. 33, Washington Co., 6.86 mi. Route 3, Sect. 68, Monroe Co., 4.64 mi. Route 5, Sect. 19, Stephenson Co., 2.53 mi. Route 5, Sect. 20, Stephenson Co., 4.64 mi. Route 5, Sect. 21, Stephenson Co., 5.45 mi. Route 5, Sect. 22, Stephenson ,Co. 5 mi. Route 5, Sect. 23 Jo Daviess-Stephenson Co., 5.96 mi. Route 7, Sect. 3, Henry Co., 5.2 mi. Route 7, Sect 6, Henry Co., 1.35 mi. Route 7, Sect 8 C, Bureau Co, 4.45 mi. Route 7, Sect. 9, Bureau Co., 5.5 mi. Route 7, Sect. 10, Bureau Co., 6.85 mi. Route 31, Sect. 1, Adams Co., 1.36 mi. Route 7, Sect. 11, Bureau Co., 7.54 mi. Route 31, Sect. 2, Adams Co, all foregoing 18 ft.; 3.47 mi. Route 2, Sect. 29, Marion Co., 18-20 ft.; alternate bids will be received on portland cement concrete, monolithic brick (4 in. brick), bituminous concrete with binder course (Specifications C1, C2, C3 or CT), bituminous concrete without binder course (Specifications C1, C2, C3 or CT); grading 5 mi. Route 3, Sect. 38-A, McDonough Co., 30 ft., 58,100 cu.yd. excav., 5.57 mi. Route 37, Sect. 1-A, Jefferson Co., 21-32 ft., 159,545 cu.yd. excav. C. Older, ch. highway engr.

Ill., East Moline—Nov. 14, paving various streets, monolithic-concrete, asphalt or vitr. brick. $175,000. L. E. Sneer, East Moline, engr. Noted Oct. 13.

Ill., Joliet—Nov. 8, by Will Co., paving roads, local limestone, 8 in. waterbound macadam. $29,000. W. H. Smith, Co. engr.

Ia., Davenport — Nov. 9, Bd. Supervs. Scott Co. paving 6.5 mi. Davenport-Harrison St.-New Liberty Rd. from intersection of Slopertown Rd. to Plain View, 69,017 sq.yd. concrete paving, 8,642 cu.yd. excav. $200,000. J. M. Malloy, Co. engr. Noted Oct. 27.

Ia., Leon—Nov. 16, Auditor Decatur Co. grading 9.929 mi. primary roads north, west and southwest of here, Federal Aid Project 122, 126, 356 cu.yd. excav., etc.

Kan., Salina—Dec. 7, by Comrs. Salina Co., paving 7.011 mi. Sect. C and D, Project 45, concrete, brick or bituminous macadam, 18 ft. L. C. Teeter, Salina, engr.

Wyoming — Nov. 8, State Hy. Comn., Cheyenne, grading and surfacing 2 mi. Laramie-Tiesiding Rd., and 3 mi. Lincoln Highway, placing 20,000 sq.yd. macadam on Lincoln Highway, Albany Co., surfacing 7,500 cu.yd. Cheyenne-Torrington Rd., Laramie Co.; 12,000 cu.yd. Casper-Sheridan Rd., Johnson Co.; 8,000 cu.yd. Lincoln Highway, Natrona Co. S. E. Sevison, highway engr.

Missouri—Nov. 10, by State Hy. Dept. at div. office Perryville, 1.403 mi. road from Perryville to Claryville, State Aid Project 20.114, Perry Co. $43,398. A. Graham, Jefferson City, state highway engr. Noted Oct. 27.

Missouri—Nov. 12, by State Hy. Dept., at div. office Columbia, 3.201 mi. road south of Ashland, State Aid Project 20,77, Boone Co., 30,615 cu.yd. earth excav., 157.3 cu.yd. concrete masonry $27,148. A. Graham, Jefferson City, state highway engr.

Tex., San Marcos—Nov. 12, by J. R. Wilhelm, judge Hays Co., grading and surfacing 13.92 mi. Highway 29 A, between here and Wimberly, 49.8 acres grubbing, 31,237 cu.yd. borrow, 8,671 cu.yd. loose and 4,289 cu.yd. solid rock excav., 647.71 cu.yd. concrete, 29,660 lb. reinforcing, 12,170 cu.yd. crushed rock (at quarry) 7,267 cu.yd. shale surfacing. $90,000. J. W. Puckett, co. engr.

Okla., Okmulgee—Nov. 15, by State Hy. Dept., Oklahoma City, paving 11.2 mi. road between here and Henryetta, 1 course concrete. $400,000. R. R. Tway, co. engr.

California—Nov. 14, by State Hy. Comn., Sacramento, paving 8.3 mi. highway between Batavia and north boundary, Solano Co., asphaltic concrete. A. B. Fletcher, state highway engr.

BIDS RECEIVED

Massachusetts—State Hy. Dept., Boston, opened bids Oct. 25, 6½ mi. concrete and macadam highway, 18 ft, Danvers and Topsfield, from T. J. McCue, Watertown, $273,524, Powers Bros., North Montello St., Brockton, $301,689, J. H. Fannon, Somerville, $315,297; 8,650 ft. gravel highway, Ashfield, from A. Palladino, Newton Highlands (Boston P. O.) $41,713, L. Carchia, 16 Foster St., Boston, 42,838, D. O'Connell & Sons, Holyoke, $47,035; 1,412 ft. (1) all concrete, (2) concrete base, macadam top, Boston, from T. J. McCue, Watertown, (1) $47,635, (2) $47,794, Holbrook Constr. Co., Dorchester, (1) $50,150, J. C. Coleman Sons Co., 1620 Tremont St., Boston, (1) $51,221 (2) $45,319; Rowe Contr. Co., 1215 Center Ct., Boston, (2) $49,178. Noted Oct. 13.

N. Y., Brooklyn—E. Riegelmann, boro pres., opened bids Oc[illegible] 26, resurfacing Atlantic Ave., from Cranfrod Co., 52 9th St., $74,035, Borough Asphalt Co., 1301 Metropolitan Ave., $84,761; grading, curbing, laying sidewalks on Bristol St., from Grimm Constr. Co., 170 McKinley St., $932; fencing lots on north side of McDonough St., etc., from F. L Sweeney, 665 Jefferson Ave., $432, O. White, $440, C. L. Dooley Co., 257 Adelphi St., $463; grading portion of lot on Northeast corner of Winthrop St. and Nostrand Ave., from J. C. Dempsey, $108, Grimm Constr. Co., 170 McKinley St., $142; repaving Atlantic Ave., etc., from Sicilian Asphalt Paving Co., 41 Park Row, New York, $70,606, Borough Asphalt Co., 1301 Metropolitan Ave., $73,312, Uvalde Asphalt Paving Co., 1 Bway., New York, $78,735. Noted Oct. 20.

N. Y., Brooklyn—Park Bd. at office Dept. Parks, Municipal Bldg., New York, opened bids Oct. 27, improving Ocean Parkway, main road from Coney Island Creek bridge toward Coney Island, here, from Borough Asphalt Co., 1301 Metropolitan Ave., $97,516; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $105,530; Cranford Co., 52 9th St., $116,480. Noted Oct. 20.

North Carolina — State Hy. Comn., Raleigh, opened bids Oct. 20, (1a) grading and surfacing, penetration macadam, (1b) rein.-con. bridges and culverts on 5.67 mi. State Project 601, Halifax Co., (2a) grading and topsoiling, (2b) rein.-con. bridges and cudverts on 6.9 mi. State Project 558, Tyrrell Co., (3a) grading and topsoiling, (3b) rein.-con. bridges and culverts on 4.3 mi. State Project 564, Hyde Co., (4a) grading and topsoiling (4b) rein.-con. bridges and culverts on 9.83 mi. State Project 515, Nash Co., (5) grading and topsoiling 11.22 mi. State Project 513, Nash Co., from C. F. Leighton, Inc., Richmond, Va., (1a) $103,230, (1b) $10,536; A. C. House, Weldon, (1b) $10,167; P. R. Ashby, Tucker Bldg., Raleigh, (1a) $119,385; Porter & Peck, Greenville, (1a) $122,839, (1b) $11,290, (2a) $53,921, (2b) $10,571, (2a) $54,318, (3b) $14,640, (4b) $21,583; C. W. Lacy, Wilmington, (2a) $43,682, (3a) $50,255; M. M. Jones, Washington, (2b) $8,985; M. W. Cooper, Kinston, (2a) $50,471, (3b) $14,470; Southern Dray Co., Asheville, (2b) $9,967, (3b) $15,377, (4b) $20,811; N. L. Teer, Roxboro, (3a) $54,863; Chandler & Ragland, Virgilina, Va., (4a) $25,726; Gibson Constr. Co., Knoxville, Tenn., (4a) $27,098, (4b) $21,673, (5) $33,094; Battershell & Goode, Richmond, Va., (4a) $27,859; J. A. Kreis, Holston Bank Bldg., Knoxville, Tenn., (5) $32,281; White & Simpson, Chatham, Va., (5) $34,999. Noted Oct. 6.

Alabama—State Highway Dept. Montgomery, grading and gravel surfacing 5.36 mi. Selma-Mobile Rd., Dixons Creek to Kimbrough, Wilcox Co., from Finnell Co., Tuscaloosa, $52,093; P. A. Goldsmith, Montgomery, $55,175; D. R. Cook & Co., Selma, $56,603. Noted Oct. 6.

Tex., Port Lavaca—Calhoun Co. grading and mud shell surfacing 11.37 mi. State Highway 7, from Miller Constr. Co., Port Lavaca, $93,954; Smith & James, Houston, $99,122; W. T. Hutto & Son, Gonzales, $109,000. Former bids rejected. Noted Oct. 20.

Cal., Los Angeles—Bd. Supervs. Los Angeles Co., paving, curbing and guttering 5,118 ft. Firey Ave. from Covina to Foothill Blvds., from E. L. Garretson, 1346 Fairfax Ave., $56,000; Fleming Constr. Co., 105 North Park St., Pomona, $56,500; H. M. Hanawalt, La Verne, $62,500. Noted Oct. 13.

CONTRACTS AWARDED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., grading and otherwise improving Jamaica Bay Blvd. from point 1,436 ft. south of center line of Sheridan Ave. to southerly U. S. bulkhead line of Jamaica Bay, etc., to Smith, Hauser & MacIsaacs, Inc., 18 East 41st St., New York, $2,870,000. Noted Oct. 27.

Pa., Pittsburgh—For grading, paving and improving Brownsville Ave., to Booth & Flinn Ltd., Forbes St., $152,636.

North Carolina—State Hy. Comn., at div. office, Wilmington, clearing and grading 7.64 mi. State Project 541, Pender Co., to C. G. Kershaw Constr. Co., Woodward Bldg, Birmingham, Ala, $30,507; clearing, grading and topsoiling 11.22 mi. State Project 517, Columbus Co., to J. A. Kreis, Holston Bldg., Knoxville, Tenn., $39,650, 13.17 mi. State Project 623, Bladen Co., to J. F. Mulligan Co., North Wilkesboro, $45,901; grading and concrete paving 3.35 mi. State Project 621, Robeson Co. to C. W. Lacy, Wilmington, $100,980, bridges and culvert on above, to Roanoke Bridge & Iron Wks., Roanoke, Va., $18,510; clearing, grading, topsoil, constructing rein.-con. bridges and culverts on 15.56 mi. State Project 518, Pender Co., to A. W. McClay, 2400 Grove Ave., Richmond, Va., $64,431. Noted Oct 27.

S. C., Columbia—Richland Co. paving 16 mi. Koon Rd., to Caughman Contg. Co., Columbia, concrete $428,980; asphalt $456,693 Have not decided which will be used.

Florida—State Rd. Dept., Tallahassee, paving 10 mi. State Rd. 1, Project 24, between Lake City and Baker Co. line, Columbia Co., 3 in. slag penetration macadam on 8 in. compacted base, to J. Y. Wilson, Clark Bldg., Jacksonville, cash $255,034, bonds $274,179. Noted Oct. 27.

Alabama—State Hy. Comn., Montgomery, grading and gravel surfacing 14.675 mi. road from Tuscumbia to Lawrence Co. line, Colbert Co., to J. Gwin, Jefferson Co. Bank Bldg., Birmingham, $132,719. Noted Oct. 27.

Kentucky—State Hy. Comn., Frankfort, shaping and surfacng, rock asphalt, 1.4 mi. main street through town of Stearns, McCreary Co., to Connelly Constr. Co., Somerset, $53,315. Noted Oct. 13.

Streets and Roads (Continued)

O., Cleveland—Paving Imperial Ave., to Fischer & Williams, 16010 Lorain Rd., West Park, $40,144; Elizabeth Ave. from East 93rd St. to Prince Ave., 4,140 lin.ft. stone curb and gutter, 2,300 cu.yd. earth excav and 54,200 sq.ft. vitr. brick on concrete, to Reiley Bros., The Arcade, $31,639. Noted Oct. 20.

O., Cleveland—To Rieley Bros., The Arcade, paving Dunlap Ave., $26,049, Dodge Court, $8,194; East 108th St., $18,159; East 136th St., $8,858; Stoughton Ave., $20,279; to Garland Bros., c/o Pavers Exch., East 69th St, $9,175; Rugby Rd., $6,095. Noted Oct. 27.

Mich., Ionia—State Hy. Dept., Lansing, gravel surfacing 9 mi. Assessment Dist. Rd. 352, Sect. 1-C to H. A. Brog, Middleville. $20,591. Sect 2, to E. Good, Dutton. $39,485. Noted on Oct. 6

Ill., Chicago—Bd. Local Impvts., 207 City Hall, paving and recoating North and South State St. from Jackson to Lake St., to R. F. Conway Co., 133 West Washington St. $119,500. Noted Oct. 20.

Ia., Adel—Auditor Dallas Co. grading 10,846 mi. Primary Rd. Project 195, east and west of Dallas Center, 69,955 cu.yd. excav., to W. V. Flynn, Grimes, at $0.29 per cu.yd. Noted Oct. 6.

Ia, Council Bluffs—Pottawattamie Co. grading 43.23 mi. Primary Rd. Projects 21, 22 and 92, radiating out of here, 814,899 cu.yd. excav., to E. A. Wickham & Co., 19 Scott St., $0.174 per cu.yd.

Ia, Webster City—Hamilton Co., gravel surfacing 14.94 mi. Primary Rd. Project 206, from here east to county line, 23,306 cu.yd. gravel, to A. R. Eno, Havelock, $0.37 per cu.yd. for gravel 1 mi. haul, 98,860 units additional ½ mi haul $0.075 per unit, and 42,280 units at $0.09; grading 6.04 mi. Primary Rd. Project 79, from Jewell south, 40,958 cu.yd. excav., to P. E. Shugart, Nevada, $0.26 per cu.yd. Noted Oct. 6.

Mo., Kansas City—Paving Walnut and Lydia Sts, concrete, to Mense & Glennon, Massachusetts Bldg. $54,885. Noted Oct. 13.

Tex., Clarksville—Red River Co., 32,220 sq.yd. two course rein.-con., to McGuire & Cavender, Leavenworth, $114,900. Noted Aug. 25.

Okla., Ada—Paving Dist. 9 from Main St. to Frisco R.R. tracks, to I. E. Hanson, Ada, $42,000. Noted Oct. 6.

Okla., Okmulgee—Okmulgee Co., paving 11.5 mi. road between here and Beggs, concrete, to Allen & Harrison, Henryetta, $372,225. Noted April 28.

Wash., Everett—Paving 7,900 sq.yd. Main St., et. al., to E. Wall & Co., Everett, $32,744.

Cal., El Centro—Bd. Supervs. Imperial Co., Willite, paving 7.5 mi. Brawley-Calipatria Highway, to Los Angeles Paving Co., 2900 Santa Fe Ave., Los Angeles, $145,113. Noted Oct. 13.

Cal., Los Angeles—Bd. Pub. Wks., paving, curbing and laying sidewalks on Santa Cruz St. between Pacific and Gaffey Sts., 4,727 lin.ft. cement curbing, 5,247 sq.ft. concrete gutter, 17,307 sq.ft. cement sidewalk, 70,458 sq.ft. asphalt paving and 2,479 sq.ft. concrete paving, to Fairchild-Gilmore-Wilton Co., Los Angeles Ry. Bldg., $37,385.

Cal., Whittier—Paving, curbing and laying sidewalks on Greenleaf Ave. from Orange Dr. to Bailey St., 709 lin.ft. cement curbing, 1,495 sq.ft. cement sidewalk, 404,243 sq.ft. 6 in. concrete, to Fairchild-Gilmore-Wilton Co., Los Angeles Ry. Bldg., Los Angeles, $100,495.

Ont., Toronto—To Kilmer & Barber, 10 Adelaide St. E., paving Collahie St., $3,441, Salem Ave. and Hillcrest Drive, $6,340, Rosemount Ave, $2,955, asphalt; Constr. & Paving Co., Confederation Life Bldg., Gilmour Ave., $5,488, Indian Valley Crescent, $2,073, Shears Ave., $26,715, Webb Ave., $7,745, Miller St., $12,609, asphalt, Colbeck St., $3,174, asphaltic concrete; Godson Contg. Co., Manning Chambers, Westport Ave., $3,067, Williard Ave., $25,317, Britannia and Lappin Aves., $7,447; asphalt; Warren Bituminous Paving Co., University Ave., Benson Ave., $9,468, bitulithic; Comr. Pub. Wks., Toronto, Soudan Ave., $13,391, concrete, Springmount Ave., $2,456 asphalt.

Ont., Watford—Lambson Co., 13,000 sq.yd. concreet, to Merlo, Merlo & Ray Ltd., Sandwich St., Ford City, $38,000.

Industrial Works

PROPOSED WORK

Mass., East Longmeadow—New England Steel Castings Co. Shaker Rd., soon lets contract 1 story, 70 x 125 ft. steel and timber plant. $40,000. M. W. Maloney, 145 Chestnut St., Springfield, archt.

Md., Frostburg—Big Savage Brick Co., 40 West Union St., plans brick plant here. $85,000.

O., Canton—Continental Clay Co., Zinninger Bldg., having plans prepared 1 story, 100 x 300 ft., steel and concrete plant, East Canton. $300,000. Private plans. Noted Feb. 24.

O., Cleveland—Federal Investment Co., c/o C. J. Hays, 2882 Detroit Ave., had plans prepared by Christian-Schwarzenberg & Gaede, archts., 1900 Euclid Ave., 3 story, 65 x 85 ft., brick and steel factory addition, plain foundation, West 29th St. and Detroit Ave. $75,000.

O., Cleveland—J. M. Sands, Sweeney Ave., had plans prepared 1 story, 37 x 100 ft., brick and steel forge shop, plain foundation, 10300 Harvard Ave. $40,000. Private plans.

O., Cleveland—G. A. Vyse 8816 Harkness Rd., has plans prepared 2 story, 34 x 64 ft., brick and concrete garage, plain foundation. $40,000. Private plans.

O., Martins Ferry—See "Waterworks."

Mich., Detroit—Street Ry. Comn., Murphy Bldg., having plans prepared by W. C. Markham, archt., Marquette Bldg., for 2 story, 120 x 125 ft. rein.-con., brick and steel storage plant; plain foundation, St. Jean Ave. $75,000.

Mich., Ferndale—Leasia Motor Sales Co., c/o Arnold & Shreve, archts., 308 Homber Bldg., Highland Park (Detroit P. O.), had plans prepared 2 story, rein.-con. and brick garage, service and sales building, plain foundation, Woodward Ave. and Nine Mile Rd. $40,000.

Ill., Chicago—Fox & Fox, archts., 38 South Dearborn St., preparing plans and soon take bids 5 story, 50 x 142 ft. printing plant, rein.-con., brick and steel, Washington Blvd. and Elizabeth St., for Bronson-Canode Printing Co., 626 Federal St. $150,000. Noted Oct. 27.

Ill., Chicago—P. Gerhardt, archt., 64 West Randolph St., making plans and soon takes bids 1 and 2 story, 150 x 300 ft., dye plant, brick, concrete and steel, Grand Ave. near 50th Ave. $250,000. Owners name withheld.

Ill., Jonesboro—Union Grain & Milling Co. plans 2 story mill, brick and steel, $40,000. Architect not selected.

Ill., Mt. Morris—Kabel Bros. Co. having plans prepared by N. E. Buser, archt., Mt. Morris, 1 story, 96 x 185 ft. printing plant, rein.-con., brick and steel. $50,000.

Ill., Wheaton—F. E. Wheaton & Sons having plans prepared by L. M. Mitchell, archt., 138 North La Salle St., Chicago, 1 story, 66 x 101 ft. garage, brick and steel. $55,000.

Wis., Dodgeville—Wisconsin River Power Co., Gay Bldg., Madison, plans 2 story, 60 x 86 ft. electric sub and power station, brick, here. $55,000. Architect not selected.

Wis., Wauwatosa—Milwaukee Co. Bd. Trustees having surveys made by Vaughan & Meyer, engrs., Security Bldg., Milwaukee, for power heating plant. Cost between $300,000 and $500,000. W. L. Coffey, business mgr.

Minn., Minneapolis—Franklin Co-operative Creamery Assn., 2601 Franklin Ave., plans 2 or 3 story, brick and concrete creamery on North Side. $55,000. H. I. Norby, pres. Architect not selected.

Minn., St. Paul—Creamery Package Mfg. Co., Ft. Akinson, Wis., having plans prepared by M. Tullgren & Sons, archts., 425 East Water St., Milwaukee, Wis., for 3 story, 95 x 170 ft. warehouse, brick and concrete, plain foundation, Colfax Ave., here. $100,000.

Minn., St. Paul—W. Fernholz, 1046 East 4th St., plans 1 story, 50 x 180 ft. garage, concrete and brick, Hastings Ave. and Cypress St. $40,000. Architect not selected.

Kan., Neodesha—See "Waterworks."

Kan., Wichita—Wichita Ice & Storage Co., c/o C. W. Southward, pres. 213 South Rock Island Ave. having plans prepared by G. E. Wells, archt., Boatmens Blk., St. Louis, Mo., 5 story, 75 x 90 ft. ice plant, brick and rein.-con. $200,000.

Neb., Randolph—Plans addition to electric light plant. $65,000. C. Blizzard, clk. Engineers name withheld.

Mo., Ferguson—Republic Photographic Co., c/o E. B. Fish, pres., Kansas City, having plans prepared by J. W. Gerhard, archt., Boatmens Bank Bldg., St. Louis, 1 story, 55 x 385 ft. and 77 x 162 ft. brick and steel factory, here. $125,000.

Mo., Monett—Missouri Holding Co., Bway. Hotel Bldg., plans 1 story concrete factory, Main St. $50,000. J. Nelson, secy. Architect and engineer not selected.

Mo., St. Louis—R. L. Williams & Co., archts., International Bldg., preparing plans 2 story, brick and steel garage. $60,000. Owners name withheld.

Ark., Gravette—T. A. Wisdom plans 1 story, brick and frame foundry and machine shop, Main St. $40,000. Architect not selected.

Cal., San Francisco—Bothin Realty Co., Atlas Bldg., soon takes bids 3 story, rein.-con. factory, Folsom St. east of 2nd St. $45,000. A. S. Bugbee, 26 Montgomery St., archt.

Ont., Amherstburg—Midwestern Tractor Wheel Co., plans factory. $50,000. H. H. Lane, mgr. Private plans.

Ont., Bridgeburg—Buffalo Specialty Co. plans to rebuild factory recently damaged by fire. Loss $75,000.

Ont., Chatham—Chatham Crystal Ice Co., having plans prepared by J. W. Leighton, archt., Bartlett Bldg., Windsor, concrete and brick plant. $60,000.

Ont., Dresden—Lawrence & Wakefield, having plans prepared for concrete and steel mill to replace one recently destroyed by fire. $100,000. Prices wanted on all materials. Private plans.

Ont., Petrolea—Peninsular Sugar Co., Chatham, plans refinery here, 600 ton capacity. $2,000,000. F. H. Hubbard, mgr. of Ohio Sugar Co., Ottawa, O., pres.

B. C., Prince Rupert—Prince Rupert Pulp & Paper Co., 602 Pacific Bldg., Vancouver, received ratification of ratepayers for pulp mill, here, first unit, 40 ton daily capacity. $1,000,000. Engineer not appointed.

H. T. Honolulu—Loves Biscuit & Bread Co. has plans prepared by A. W. Hoffmann, engr., 730 Marshall St., Milwaukee, Wis., 5 story, 80 x 120 ft. rein.-con. and brick factory, plain foundation. $100,000.

BIDS DESIRED

R. I., Providence—W. G. Richards, archt., 17 Exchange St., receiving bids 2 story, 90 x 120 ft., concrete; brick and steel addition to garage and service station, plain foundation, for Dorrance St. Garage, Dorrance and Friendship Sts. $75,000.

O., Cleveland—H. M. Morse & Co., archts., Plymouth Bldg., receiving bids 1 story, 43 x 122 ft., brick and steel factory, plain foundation, 875 East 140th St., for Pee Chee Cleaner Mfg. Co. $60,000.

O., Columbus—Nov. 18, by C. L. Steele, secy. Bd. Trustees Ohio State University, 18 x 204 ft. power house, 60 ft. high, brick and concrete. $300,000. J. N. Bradford, Ohio State University, archt.

O., Findlay—Glenwood Motor Car Co., c/o B. J. Cline, East 71st St. and Euclid Ave., Cleveland, receiving bids 1 story, 100 x 700 ft., brick and steel factory, plain foundation, here. $250,000. Private plans.

Ill., Peoria—Nov. 10, Leshnick Directory Co., 514 Main St., and B. L. Hulsebus, archt., Jefferson Bldg., 2 story, 50 x 150 ft., printing plant, brick, steel and concrete, $100,000. Noted Oct. 27.

Wis., Eagle River—J. B. Cook receiving bids for 1 story, 50 x 50 ft. brick, rein.-con. and steel machine shop. $45,000. Private plans.

Mo., Carthage—F. W. Steadly receiving bids 1 story, 80 x 100 ft. mill, near here. $50,000.

CONTRACTS AWARDED

Mass., Brookline—L. A. Vachon, 653 Washington St., 2 story, 60 x 148 ft., brick garage and service station, Washington St., to J. Shapiro & Son, 27 School St., Boston. $80,000.

Mass., Cambridge—Mack Motor Truck Co., 185 Massachusetts Ave., 1 story 45 x 110 ft., rein.-concrete addition to factory, Osborn St., to Blake & Pope, 15 Beacon St., Boston. $40,000.

Conn., Hartford—Elite Waist Co., Allyn St., altering and 2 story, 90 x 100 ft., brick and steel addition to factory, plain foundation, High St. $40,000. Work will be done by day labor. I. A. Allen, Jr., Inc., 904 Main St., archt.

Conn., Meriden—Griswold, Richmond & Glock Co., 2 West Main St., 1 story, 50 x 160 ft., brick, steel and concrete plant, plain foundation, West Main and South Grove Sts., to L. A. Miller, 22 Church St., $40,000.

Industrial Works (Continued)

Conn., Stamford—Monarch Mfg. Co., 718 B'way, New York, 2 story, 90 x 140 ft., brick and steel plant, plain foundation, Pacific St., here, to G. Robertson Constr. Co., 1994 Morris Ave., New York. $75,000. Noted Sept. 15.

Pa., Clarion—Berney Bond Glass Co., 1 story, 70 x 180 ft. factory, to J. Trunk Jr., Clarion, $90,000.

Pa., New Brighton—Standard Mfg. Co., Bessemer Bldg., Pittsburgh, 1 story, 144 x 180 ft. brick and steel foundry, here, to Austin Co., 16112 Euclid Ave., Cleveland, O.

Pa., New Brighton—C. C. and E. P. Townsend Co., 3 story, 124 x 128 ft. rein.-con. and brick warehouse and factory, near Fallston Sta., to E. T. Anderson, Inc., 34 Greenway St., Forest Hills, N. Y.

Pa., Pittsburgh—Arburthnot Stevenson Co., Penn Ave., 1 story, 75 x 210 ft. garage, Bidwell St., to C. H. Kerr Co., Vanadium Bldg., $75,000.

O., Ashtabula—City, 1 story, 80 x 80 ft., brick, steel and concrete power plant, to Service Constr. Co., 6110 Euclid Ave., Cleveland, $63,480. Noted Sept. 22.

O., Cleveland—Pavelka Bros., 2978 East 37th St., 1 story, 57 x 65 ft., brick and steel factory addition, plain foundation, East 37th St. and Bway., to W. Dunbar Co., 8201 Cedar Ave., $40,000. Noted Oct. 20.

O., Cleveland—Richmond Bros., 1600 East 55th St., 1 story, 66 x 90 ft., brick, steel and concrete garage, plain foundation, to W. I. Thompson & Son Co., 5103 Euclid Ave. $40,000. Noted Oct. 20.

O., Cleveland—Sobul & Elder, 416 Guardian Bldg., 1 story, 100 x 100 ft., brick and steel garage and commercial building, plain foundation, 2719 East 55th St., to Meyer Sobul, 2635 East 51st St., $50,000. Noted Sept. 29.

O., Cleveland—Steam boiler plant for convention hall (now under construction), to Chappell-Warren Co., 1837 St. Clair Ave., $81,700. Noted Oct. 20.

O., Warren—D. E. Miller general contract 2 story, 80 x 120 ft., rein.-con. garage, West Market St., to Chapman & Graham, 132 Blackstone Ave., Jamestown, N. Y., $44,000. Noted May 5.

Mich., Menominee—Lloyd Mfg. Co., North State St., 3 story, 72 x 400 ft., rein.-con. and brick warehouse, plain foundation, to H. J. Selmer Co., McCartney Natl. Bank Bldg., Green Bay, Wis., $85,000.

Ill., Centralia—Chicago, Burlington & Quincy R.R. Co., 542 West Jackson St., Chicago, 1 story roundhouse, 3 stalls 105 ft. long, brick and mill construction, and 400-ton concrete and steel coal chute, here, to J. E. Nelson & Sons, 3240 South Michigan Ave., Chicago, $125,000. Noted Oct. 13.

Ill., Centralia—J. Longenfeld, 2 story, 80 x 106 ft. garage, brick and mill construction, to F. Pfeiffer, 428 West 2nd St., $40,000. Noted Oct. 27.

Ill., Chicago—A. Bromstedt, 6440 South Green St., 1 story, 50 x 200 ft. garage, rein.-con., brick and steel, to J. Broehl, 953 West 71st St., $40,000.

Ill., Chicago—Murphy-McSuen Co., 79 West Monroe St., 1 and 2 story factory, concrete and brick, 65th St. near Austin Ave., to H. B. Barnard, 140 South Dearborn St., $100,000.

Ill., Chicago—Spingola & Sons, 750 Taylor St., 2 story, 75 x 120 ft. brick garage, 1918 South Morgan St., to Bottigliero & Stella, 911 South Bishop St., $50,000. Noted Sept. 8.

Ill., Evanston—C. F. Thumm, 2313 Lincoln St., Chicago, 1 story, 171 x 200 ft., garage, here, to B-W Constr. Co., 10 South La Salle St., Chicago, $85,000.

Ill., Peoria—J. C. Striebick Co., 212 South Washington St., 4 story, 61 x 100 ft. warehouse and office, rein.-con. and brick, to V. Hobst & Sons, Lehmann Bldg., $150,000. Noted Oct. 27.

Wis., Beaver Dam—Price & Ruland Co., 2 story, 60 x 126 ft., brick, rein.-con. and steel factory, to Hutter Constr. Co., 128 Western St., Fond Du Lac, $45,000.

Wis., Drummond—Drummond Garage Co. 2 story, 60 x 60 ft., brick, rein.-con. and steel, Main St., to U. F. Weaver, Main St., Owen, $42,000.

Wis., Milwaukee—H. and R. Larsen, Columbia Ave., 1 story, 40 x 120 ft. garage, brick and steel, plain foundation, Fond du Lac Ave., by day labor. $40,000.

Wis., Milwaukee—J. Wollaeger Co., 417 Wells St., 4 story, 90 x 120 ft. garage, rein.-con. and brick, plain foundation, Grand Ave., to Universal Constr. Co., 97 Wisconsin St., $100,000; cost plus percentage basis. Noted Sept. 29.

Wis., Waukesha—Manitowoc Church Furniture Co., 1 story, 60 x 150 ft., factory, brick, rein.-con. and steel, by day labor. $60,000. Noted Sept. 15.

Ia., Des Moines—Des Moines Gas Co., 7th and High Sts., 1 story, 50 x 55 ft. power plant addition, at 107 East Vine St., to C. F. Weitz & Sons, 713 Mulberry St., $50,000.

Kan, Coffeyville—E. R. Lawson, Nowata, Okla., 1 and 2 story ice plant, brick, steel and stone, here, to Universal Constr. Co., Coffeyville, $100,000. Noted Sept. 29.

Kan., Council Groves—E. A. Roberts, 2 story garage, to J. A. Flynn, Council Groves, $45,000. Noted Oct. 27.

Mo., St. Joseph—W. S. Littlejohn, 6106 King Hill Ave., 1 story, 54 x 135 ft. tile, concrete and brick garage, King Hill Ave. and Valley St., by day labor. $45,000. Architects name withheld.

Mo., St. Louis—J. E. Dougherty, 127 Blow Ave., 2 story, 50 x 117 ft., brick and steel garage, 39th St. and McRee Ave., by day labor. $45,000. Architects name withheld. Noted Oct. 27.

Mo., St. Louis—White Co., 3442 Lindell St., 1 story, brick and steel service station, Laclede and Vanderventer Sts., by day labor. $75,000. P. J. Bradshaw, International Life Building, archt. Noted Oct. 27.

Tex., Dallas—J. P. Thomas, 2807 Woodside St., 3 story, concrete warehouse, Lamar and Broom Sts., to Hughes O'Rourke Constr. Co., Praetorian Bldg., $50,000.

Okla., Duncan—For 800 k.w. plant, distributing system and White way, to Merkle Mchy. Co., 1733 Walnut St., Kansâs City, Mo., $227,824. Noted May 19.

Cal., South San Francisco—Fontana Products Mfg. Co., 112 Market St., San Francisco, rein.-con. factory, here, to J. S. Sampson & Co., 682 Monadnock Bldg., San Francisco, $70,980.

Buildings

PROPOSED WORK

Me., Portland—Business—Owner, c/o E. Dalton, Fidelity Bldg., plans 4 story, brick, concrete and steel, Federal St. $150,000. Miller & Mayo, Fidelity Bldg., archts.

Mass., Brookline — Medical — Deaconess Assn., 10 Deaconess Rd., having sketches made 3 story, brick and rein-con. $300,000.

Mass., Greenfield — High School — High School Bldg. Com. had revised plans made by L. C. Patton, archt., 579 5th Ave., New York, 2 story, 120 x 245 ft., concrete, brick and steel, plain foundation, Federal St. $400,000.

Mass., Lawrence—High School—School Comn. plans 4 story 65 x 260 ft. brick, concrete and steel addition, Oak St. $500,000. J. E. Allen, 283 Essex St., archt.

Mass., New Bedford — Business — S S. Kresge Co., Kresge Bldg., Detroit, Mich., plans 3 story, brick and concrete, Purchase St., here. $150,000. Private plans.

Mass., Wakefield—Library—Plans stone library, Main St. $150,000. H. M. Dolbeare, c/o Wakefield Daily Item, chn. Cram & Ferguson, 15 Beacon St., Boston, archt.

Conn., New Haven — Forestry School — Yale University having plans prepared by Delano & Aldrich, archts., 126 East 28th St., New York, 3 story, brick, concrete, and steel, Pierson Sage Sq. $300,000. J. R. Angell, pres.

Conn., Norwich—Business—Disco Bros., 267 Main St., plans 3 story, brick and steel, Main St. $150,000. Cudworth & Thompson, Thayer Bldg., archts.

N. Y., Buffalo—Church—B. S. Farrall, pastor, 248 Northland Ave., having plans prepared by F. A. Spangenberg, archt., Prudential Bldg., 105 x 175 ft., brick, stone, concrete and steel, Dupont St. $160,000.

N. Y., Corning—Academy—Dept. Pub. Wks., City Hall, having preliminary plans prepared by F. H. Dewey and H. Greenley, archts. and engrs., 949 B'way, New York, brick, steel and stone, plain foundation, 3rd and Pine Sts. $250,000.

N. Y., Flushing—School—Bd. Educ., 500 Park Ave., New York, soon takes bids P. S. 72, brick, steel and stone, plain foundation, Maspeth Ave. near Grand Ave. $450,000. C. B. J. Snyder, Municipal Bldg., New York, archt. and engr.

N. Y., Medina—Schools—Bd. Educ. opens bids about Feb. 1, 2 and 3 story, 188 x 208 ft. high school and 1 story, 61 x 132 ft. grade school. Bonds for $450,000 and $45,000 voted. W. Ittner, Bd. Educ. Bldg., St. Louis, Mo., archt. Noted April 21.

N. Y., New York—Apartment—Fusion Realty Co., c/o D. S. Lang, archt. and engr., 110 West 34th St., having plans prepared brick, steel and stone, plain foundation, Fox St. near Westchester Ave. $200,000.

N. Y., New York—Apartment—G. Nordham, archt. and engr., 18 West 34th St., soon takes bids 6 story, brick, steel and stone, plain foundation, Tremont Ave. $750,000. Owners name withheld.

N. Y., New York—Bank—North River Savings Bank, 31 West 34th St., plans 70 x 100 ft., 206-212 West 34th St., $350,000. Architect not selected.

N. Y., New York—Memorial—Knights of Columbus having plans prepared by G. McCabe, archt. and engr., 96 5th Ave., 4 story, 65 x 125 ft., brick, steel and stone, plain foundation, Ave. C and East 30th St. $150,000.

N. Y., New York—Theatre—Fagazy & Rosetti, c/o Reilly & Hall archts. and engrs., 405 Lexington Ave., having sketches made 3 story 100 x 120 ft., brick, steel and stone, plain foundation, MacDougal and West Houston Sts. $150,000.

N. J., Fairview — Mausoleum — Mausoleum Co. of America, c/o G. B. Webb, archt., 1356 Bway., New York, having sketches made granite and marble, plain foundation, at cemetery here. $200,000.

N. J., Jersey City—Hotel—Knickerbocker Co., c/o S. Lerner, pres., 28 Duncan Ave., having plans prepared by W. Newman, archt., 314 Palisade Ave., 7 story, 65 x 125 ft., Hudson Blvd. $600,000.

N. J., Newark—Bank—Springfield Ave. Trust Co., c/o Guilbert & Bettelle, archts. and engrs., soon lets contract 2 story, brick, steel and stone, plain foundation, Springfield Ave. $175,000.

Pa., Altoona—Church—Fairview Methodist Church having plans prepared by Hersh & Shollar, archts., Altoona, 2 story, 70 x 115 ft., 5th St. and 23rd Ave. $150,000. Noted Sept. 29.

Pa., Phila.—Office—J. W. Hollawell, Broad and Chestnut Sts., plans 10 story, 50 x 160 ft. rein.-con., brick and steel, plain foundation, 1612-1628 Sansom St. $300,000. Private plans.

Pa., Phila.—Schools—Bd. Educ., 19th and Chestnut Sts., having preliminary plans prepared and takes bids early in 1922, 3 story, 50 room, 24th and Jackson Sts., $750,000. 3 story, 40 room, Roxborough Dist. (Phila. P. O.), $450,000, 3 story, 50 room, 13th and Louden Sts., $750,000, 3 story, 50 room, 54th and Warrington Aves., $750,000, 3 story addition, 42nd and Thompson Sts., $250,000. 3 story, 6 room addition, 19th and Reed Sts., 3 story, 18 room addition, 3rd and Duncannon Sts., $250,000, all brick and stone, plain foundations.

Pa., Pittsburgh — Synagogue — Adath Jeshurum Congregation, c/o Sharove & Friedman, archts., Berger Bldg., having sketches made 100 x 146 ft., Margaretta and St. Clair Aves. $150,000.

Pa., Sharon—High School—Nov. 8 to vote on $300,000 bonds for high school on State and Case Sts. Architect not selected.

W. Va., Charleston—Theatre—T. L. Kearse Circuit of Theatres, Strand Bldg., having plans prepared by Mills & Millspaugh Co., archts., 67 East Long St., Columbus, O., 4 or 5 story. $250,000.

W. Va., Clarksburg—Store and Office—Folie Bros. had plans prepared by Holmboe & Pogue, archts., 653 Empire Bldg., 3 story, 75 x 75 ft. brick. $150,000.

N. C., High Point—College—Methodist Protestant Church having plans prepared by H. B. Hunter, archt., Burlington, for college. $500,000. R. M. Andrews, Greensboro, chn.

Tenn., Cookeville—Dormitory—J. P. Brown, supt. State Bd. Educ., Nashville, will take bids about Nov. 15, dormitory at Tennessee Polytechnic Institute, here. $150,000. Daughtery & Gardner, Stahlman Bldg., Nashville, archts.

O., Canton — Hotel — I. L. Gould, 104 Market Ave. S., plans 6 story, 66 x 125 ft., brick, fireproof construction, Cleveland and 6th Aves. S. W. $175,000.

O., Cleveland — Apartment — M. F. Narosny, 12617 Edmonton Ave., having plans prepared by M. Weiss, archt., 618

Buildings (Continued)

Union Bldg., 3 story, brick and timber, plain foundation, Overlook Rd. near Kenilworth Rd. $200,000.

O., Cleveland—Auditorium—J. F. Judd, Jr., 4601 Euclid Ave., having plans prepared by G. S. Rider & Co., archts., Century Bldg., remodeling and 2 story, brick and steel addition, plain foundation. $200,000.

O., Cleveland—Commercial—W. Krause & Son, 2042 East 4th St., having plans prepared by G. B. Bohn, archt., Williamson Bldg., 3 story, 90 x 120 ft., brick, steel and concrete, plain foundation, Chester Ave. and East 11th St. $150,000.

O., Cleveland — Library — Cleveland Library Bd., c/o C. Lorenz, Kinney-Levan Bldg., plans 4 story, brick, steel and concrete, plain foundation, East 3rd St. and Superior Ave. $2,000,000 now available, will vote on additional $2,000,000 Nov. 8 Walker & Weeks, 1900 Euclid Ave., archts. Noted Feb. 17.

O., Cleveland—Office and Theatre—Shubert Vaudeville Theatres c/o R. McLaughlin of Ohio Theatre, East 17th St. and Euclid Ave., having plans prepared by T. Lamb, archt., 644-8th Ave., New York, 16 story, brick, steel and concrete, plain foundation, Huron Rd. $2,500,000.

O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 3 story, 40 room, brick, steel and concrete, plain foundation, West 46th St. and Hyde Ave. $750,000.

O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 3 story, brick, steel and concrete plain foundation, University Circle. $3,000,000.

O., Cleveland—High School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 3 story, brick, steel and concrete addition, plain foundation, West 93rd St. and Willard Ave. $800,000.

O., Cleveland—Schools—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCornack, archt., East 6th St. and Rockwell Ave., 1 story addition, East 31st St. and Payne Ave., also 2 story addition, Grand Ave. and Kinsman Rd., brick, steel and concrete, plain foundations. $150,000 and $200,000 respectively.

O., Columbus—Bank—Commercial Natl. Bank, Long and High Sts., had plans prepared by Mills & Millspaugh, archts., 67 East Long St., 2 story, 62 x 121 ft. steel, stone and brick, East Long St. $300,000.

O., Columbus—High School—Bd. Educ., Town and High Sts., has plans prepared by F. L. Packard, archt., New Hayden Bldg., 3 story, 275 x 290 ft., brick, stone and concrete, Arcadia Ave. $985,000.

O., Columbus—High School—Bd. Educ., High and Town Sts., had plans prepared by W. T. Ittner, archt., Bd. Educ. Bldg., St. Louis, Mo., Central High School, 3 story, 250 x 310 ft., brick, concrete and stone, River front. $250,000.

O., Lima—Office—J. Wise, 230 South Cole St. and F. Komminsk, 317 South Cole St., plan 5 story, downtown section. $200,000.

O., Youngstown—Auditorium—City having plans prepared by Helmle & Corbett, archts., 132 West 42nd St., New York, 1 story, 150 x 205 ft., Indiana limestone, Wick and Park Sts. $500,000.

Mich., Detroit—Art Institution—City, c/o C. H. Burroughs, 703 Jefferson Ave., having plans prepared by Zantzinger, Borie & Medary, archts., Otis Bldg., Phila., 1 and 2 story, 150 x 300 ft. rein.-con. and steel, plain foundation, Woodward Ave. and John R. St. $2,000,000.

Mich., Detroit—Church—St. Agnes Parish, c/o Van Leyen, Schilling, Keough, Reynolds, archts., 3440 Cass Ave., having plans prepared 2 story, 65 x 167 ft. rein.-con., brick and steel, plain foundation, 12th St. and LaSalle Gardens. $150,000.

Mich., Detroit—Office, M. Basso, 517 Free Press Bldg., having plans prepared by Van Leyen, Schilling, Keough & Reynolds, archts., 3440 Cass Ave., 8 story, rein.-con., brick, steel and terra cotta, plain foundation, Woodward and Horton Aves. $200,000.

Mich., Detroit — School — Resurrection Parish, c/o Van Leyen, Schilling, Keough & Reynolds, archts., 3440 Cass Ave., plans 2 story, 12 room, rein.-con., brick, steel and stone, plain foundation. $150,000.

Ill., Amboy—High School—Bd. Educ. having plans prepared by J. W. Coleman, archt., 6257 St. Lawrence Ave., Chicago, 2 story, 107 x 189 ft., rein.-con., brick steel and stone. $250,000.

TUNNEL—SEATTLE, WASH.

Bids were received Sept. 30, by Bd. Pub. Wks., Seattle, for building tunnel for Gorge Creek plant of Skagit River Development, from (A) R. C. Storrie & Co., Crocker Bldg., San Francisco, **(awarded contract)**; (B) Puget Sound Bridge & Dredging Co., Central Bldg.; (C) Grant, Smith & Co., Henry Bldg. The unit bids were as follows:

	A	B	C
4,820 cu.yd. open cut excavations	$5 00	$3.50	$1.40
282 lin.ft. construction tunnels	60.00	125.00	110.60
372 lin.ft. temporary water tunnel	60.00	135.00	110.60
10,978 lin.ft. excavation of main tunnel	119.00	152.00	150.50
10,978 lin.ft. concrete lining of main tunnel	56.00	40.00	46.50
10,830 cu.yd. excavation of surge tank and riser	10.00	6.50	11.05
1,060 cu.yd. concrete lining of surge tank riser	30.00	10.00	22.10
2,260 cu.yd. excavation of penstock connection	10.00	6.00	16.60
930 cu.yd. concrete lining of penstock connection and bulkhead	30.00	10.00	22.10
2,300 cu.yd. excavation of permanent intake	7.00	6.00	11.05
235 cu.yd. concrete lining of permanent intake	30.00	10.00	22.10
75M ft. timber lining of temporary and construction tunnels	75.00	30.00	44.25
Extended totals	$2,203,865	$2,332,371	$2,476,840

Ill., Bloomington — Memorial — J. McBarnes, Holder, having plans prepared by A. F. Moratz, archt., Peoples Bank Bldg., 2 story, rein.-con., brick, stone and steel. $150,000. Noted Oct. 27.

Ill., Champaign — Apartment — F. W. North & Co., Robinson Bldg., having plans prepared 5 story, rein.-con., brick and stone. $250,000. Architects name withheld.

Ill., Chicago—Apartment—R. S. De Golyer, archt., 7 South Dearborn St., preparing plans and soon takes bids 8 story, 125 x 150 ft., rein.-con., brick and steel, Lake View Ave. and Deming Pl., for W. G. Souders, 218 South La Salle St. $700,000.

Ill., Chicago—Bank—A. Schwartz, archt., 118 North La Salle St., preparing plans and soon takes bids, 8 story, 100 x 125 ft., rein.-con., brick and steel, 63rd St. and Cottage Grove Ave., for Washington Park Natl. Bank, 63rd St. and Evans Ave. $500,000.

Ill., Danville—Hotel—Van Volkenburg Bros., Savory Hotel, having plans prepared by Lewis & Dougherty, archts., Temple Bldg., 7 story, rein.-con. and terra cotta. $400,000.

Ill., Danville—High School—Bd. Educ. having plans prepared by C. M. Lewis & Dougherty, archts., Temple Bldg., 3 story, rein.-con., brick and stone. $500,000. W. Smith, pres.

Ill., Evanston—Apartment—A. E. Anderson, c/o J. A. Nyden archt., 190 North State St., Chicago, having plans prepared 3 story, 100 x 110 ft., brick and stone, here. $200,000.

Ill., Herrin—Hall—Assn. Labor Organization, c/o H. Willis, having plans prepared by N. S. Spencer & Son, archt., 37 West Van Buren St., Chicago, 4 story, 75 x 100 ft., rein.-con., brick and terra cotta. $200,000.

Ill., Peoria—Apartment—W. G. Causey, 236 South Jefferson St., having plans prepared by B. L. Hulsebus, archt., 1232 Jefferson Bldg., 8 story, rein.-con., brick and stone. $500,000.

Ill., Urbana — Hotel — Corporation c/o Assn. of Commerce, plans 5 story hotel, here. $225,000. B. K. Gibson & Co., 608 South Dearborn St., Chicago, archts.

Ill., Urbana—Office and Recitation—University of Illinois plans 3 story, brick, stone and rein.-con., $500,000. H. E. Cunningham, secy.

Ill., Waukegan—Court House—Lake Co., c/o C. Holstein, comr., having plans prepared by Beers-Schling & Bailey, archts., 53 West Jackson St., Chicago, 3 story, 200 x 200 ft., rein.-con., stone and steel. $400,000. Noted June 16.

Wis., Madison—Theater—M. Heiman, 190 North State St., Chicago, having preliminary plans prepared by C. W. and G. L. Rapp, archts., 190 North State St., Chicago, for 2 story, 132 x 132 ft., rein.-con., brick and steel, plain foundation, State St., here. $300,000. Noted Oct. 20.

Wis, Milwaukee—Club House—B.P.O.E. No. 46, c/o P. Kelly, secy., 448 Jefferson St., plans 6 story, 100 x 160 ft., rein.-con., brick and steel, Mason and Marshall Sts. Cost between $900,000 and $1,000,000. Architect not selected.

Wis., Racine—Hotel—S. Sklute, 1103 College Ave., having plans prepared by K. M. Vitzthum, archt., 21 East Van Buren St., Chicago, 5 story, 60 x 200 ft., rein.-con., brick and steel, Main St. $210,000.

Minn., Minneapolis—Junior High Schools—Bd. Educ., City Hall, having plans prepared by E. H. Enger, archt., 305 City Hall, 3 story, 26th and Emerson Aves., N., and 3 story on 14th St. and Spruce Pl., both rein.-con., brick, tile and stone. $450,000 each. G. F. Womrath, business supt.

Kan., Humboldt—High School—Bd. Educ. c/o C. M. Hilleary, clk., having plans prepared by T. W. Williamson & Co., archts., Central Natl. Bank, Topeka, 2 story, 80 x 120 ft., brick and rein.-con., stone trim. $165,000.

Kan., Pittsburgh — Gymnasium — State Normal School, c/o G. A. Kimball, Topeka, having plans prepared by R. Gambell, archt., 1415 Fillmore St., Topeka, 1 story, 110 x 150 ft. brick and steel. $150,000.

Kan., Salina — Hospital — St. Barnabas Hospital having plans prepared by C. W. Shaver, archt., Salina, 3 story, brick, stone trim and rein.-con. $200,000.

Kan., Wellington — High School — Bd. Educ. c/o G. A. Slothomes, secy., having plans prepared by T. W. Williamson & Co., archts., Central Natl. Bank, Topeka, 3 story, brick, stone and rein.-con. $300,000.

S. D., Wakonda—School—Bd. Educ. having plans prepared by W. E. Hulse & Co., archts, Grain Exch. Bldg., Sioux City, Ia., 2 story, 95 x 128 ft., rein.-con., brick and stone. $150,000. S. Jacobson, clk.

Mo., Farmington—Hospital—Farmington State Hospital having plans prepared by H. H. Hohenschield, archt., Odd Fellows Bldg., St. Louis, 3 story, rein.-con. and brick. $150,000.

Mo., Joplin — Assembly etc. — Lakeside Assembly plans Methodist assembly buildings and park improvements. $500,000. Address H. L. Marks, 4th and Joplin Sts., secy. Architect not selected.

Mo., Joplin—Convention Hall—Bd. Trustees, c/o C. S. Bankard, chmn., 708 North Byers St., plan 2 story, concrete and brick. $200,000. Architect not selected.

Mo., Kansas City—Church—Holy Name Roman Catholic Church having plans prepared by Wight & Wight, archts., 1st Natl. Bank, 2 story, 77 x 186 ft., brick, steel and Bedford stone, 23rd and Benton Sts. $160,000.

Mo., Kansas City—Institution — C. A. Smith, archt., Finance Bldg., rejected bids opened Oct. 25, 2 story, brick and terra cotta addition, Grand and Missouri Aves., for Helping Hand Institute, c/o E. T. Brigham, supt., 523 Grand Ave. $150,000 Noted Oct. 20.

Mo., Koch—Hospital—Bd. Pub Serv., City Hall, St. Louis, having plans prepared by L. Preuss, archt., c/o owner, 3 story, 65 x 136 ft. rein.-con., brick and stone, here. $340,000.

Mo., Maryville—Dormitory—State Teachers College, c/o W. W. Lamkin, having plans prepared by R. Meier, archt., Lincoln Bldg., St. Joseph, 3 story, rein.-con., brick and stone. $200,000. Noted Sept. 22.

Mo., St. Joseph—Office—A. H. Ehrlich & Sons Mfg. Co., Lake and Colorado Aves., having plans prepared by Siemens & Arnold, archts., Bartlett Bldg., 3 story, 80 x 180 ft., rein.-con., brick and stone. $200,000.

Mo., St. Louis—Film Exchange—Lowenstein Bros. Real Estate Co., 105 North 7th St., having plans prepared by Widman & Walsh, archts., Wainwright Bldg., 4 story, 144 x 250 ft., brick and steel, Olive and Theresa Sts. $750,000.

Mo., Springfield—College—State Teachers College, c/o C. M. Hill, pres., having plans prepared by Hawkins & Holner, archts., McDaniel Bldg., 2 story, 90 x 230 ft., rein.-con., brick and stone. $250,000. Noted Sept. 22.

Okla., Wainwright — High—School — Bd. Educ. having plans prepared by M. T. Hardin, archt., 904 North C St., Muskogee, 2 story, rein.-con., brick and stone. $200,000.

Buildings (Continued)

Cal., Long Beach—Bank and Office—Farmers & Merchants Bank having plans prepared by W. H. Austin, archt., 222 1st Natl. Bank Bldg., 6 story, 100 x 150 ft., 3rd St. and Pine Ave. $300,000.

Cal., Los Angeles — Auditorium — Al Malaikah Temple, c/o Edelman & Barnett, H. W. Hellman Bldg., and J. C. Austin, 1125 Baker-Detwiler Bldg., archts., having plans prepared Class A construction auditorium, Jefferson and Royal Sts. $1,000,000.

Cal., Los Angeles—Theatre—West Coast Theatres, Inc., c/o Milwaukee Bldg. Co., archts., 315 Wright & Callender Bldg., having plans prepared 3 story, 120 x 230 ft., Hollywood Blvd. $500,000.

Ont., Ft. William — School — Bd. Educ., Victoria Blk., receiving competitive plans until Oct. 26, for 2 story, 8 room, concrete, brick and steel. $150,000. Architects not selected.

Ont., London—Schools—Bd. Educ. having plans prepared by L. E. Carrothers, archt., c/o Bd. Educ., two 2 story, brick, Ealing and Empress Aves. $225,000.

Ont., Sandwich—Jail—Takes bids about Nov. 22, 2 story, 150 x 200 ft. brick and stone jail, laundry and boiler house, $250,000. Nichols, Sheppard & Colthurst, Windsor, archts. Noted Oct. 13.

BIDS DESIRED

Mass., Newton—High School—Nov. 9, Bldg. Dept., 3 story, 61 x 70 ft and 57 x 241 ft. brick, Walnut St. $275,000. Brainerd, Leeds & Kellogg, 89 Franklin St., Boston, archts. Noted Oct. 27.

Conn., Lakeville—Dormitory—C. Gilbert, archt., 244 Madison Ave., New York, taking bids 4 story 40 x 130 ft., concrete, brick and steel, plain foundation on campus, for Hotchkiss School. $175,000. Noted May 5.

N. Y., New York—Apartment—Benenson Realty Co., c/o Moore & Landseidel, archts. and engrs., 148th St. & 3rd Ave., 5 story, brick, steel and stone, plain foundation, Decatur Ave. $175,000. Work will be done by separate contracts.

N. Y., New York—Apartment—W. L. Phelan, 1875 Harrison Ave., 5 story, 90 x 175 ft., brick, steel and stone, plain foundation, Harrison Ave. $250,000. Work will be done by separate contracts. Moore & Landseidel, 148th St. and 3 rd Ave., archts. and engrs.

N. Y., New York — Apartments — S. Shapiro, c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., four 5 story, brick, steel and stone, plain foundations, Bronx Park South. $200,000 each. Work will be done by separate contracts.

N. J., Newark — School — Nov. 9, by President Bd. Educ., City Hall, Broad St., brick, steel and stone, Charlton Ave. $250,000. Noted Aug 4.

W. Va., Welch—Bank—First Natl. Bank receiving bids 6 story, 70 x 71 ft. brick and concrete. $166,000. R. M. Bates, Jr., 1st Natl. Bank Bldg., Huntington, archt.

N. C., Greensboro—Agricultural and Mechanical—Nov. 15, by Bldg. Comn. of A. & T. College for Negroes, agricultural and auto-mechanics buildings, on campus, here. $200,000. M. C. S. Noble, chmn. building comn. H. Barton, Greensboro, archt. Noted Mar. 31.

N. C., Wilson—High School—Nov. 23, by Bd. Trustees School Dist., for high school. $300,000. C. L. Coon, supt. C. C. Watson, Wilson, archt.

Ky., Louisville—Temple—R. D. Weakley, archt., Cruetcher and Stark Bldg., 233 4th St., receiving bids 5 story, 75 x 200 ft., concrete and steel, at 200 Market St., for Union Labor Organization, 306 West Jefferson St. $350,000.

O., Cleveland—Apartment—T. Horobin, 2850 Eaton Rd., receiving bids 4 story, 206 x 258 ft., brick and steel, plain foundation, Shaker Blvd. $350,000. H. P. Whitworth, 402 Hickox Bldg., archt. Noted Aug. 18.

O., Cleveland—Apartment—S. H. White, archt., 1032 Schofield Bldg., receiving bids 9 story, 80 x 350 ft., brick, steel and concrete, plain foundation, East 116th St. and Shaker Blvd., for Chester Gardens Co., c/o architect. $1,500,000.

O., Cleveland—Commercial and Apartment—S. Newman, 10710 Drexel Ave., receiving bids 2 story, 65 x 218 ft., brick and timber, plain foundation, Superior and Lockwood Aves. $150,000.

O., Columbus—Hall, etc.—Nov. 18, by C. L. Steele, secy. Bd. Trustees Ohio State University, 3 story, 62 x 87 ft. brick and concrete addition to Brown Hall, $100,000; 4 story, 175 x 200 ft., commerce and journalism building, brick and concrete, $400,000; 3 story, 40 x 92 ft. brick and concrete addition to physics building., $80,000; 4 story, 63 x 145 ft., womans dormitory, brick, stone and concrete, $150,000. J. N. Bradford, Ohio State University, archt.

O., Toledo—High School—Nov. 23, by Bd. Educ., 3 story, 36-room, brick, steel and concrete, plain foundation, Lewis Ave. $425,000. E. M. Gee, Toledo, archt.

Ill., Chicago — Apartment — P. F. Olsen, archt., 127 North Dearborn St., receiving bids 3 story, 100 x 173 ft., rein.-con., brick and steel, Greenleaf Ave. near Sheridan Rd., for F. U. Mallman, c/o architect. $200,000.

Ill., Chicago—Office—Holabird & Roche, archts., 104 South Michigan Ave., taking bids 12 story 118 x 125 x 192 ft. rein.-con., white limestone and brick, 1206-24 Lake Shore Drive, for Illinois Life Insurance Co., $500,000. Noted Sept. 1.

Ill., Chicago—Office—Holton-Seelye & Co., 140 South Dearborn St., receiving bids 6 story, 100 x 150 ft., rein.-con., brick and steel, 41st St. and Michigan Ave., for La Salle Extension University, 4046 Michigan Ave. $500,000. L. E. Russell, 25 North Dearborn St., archt.

Ill., Evanston—Apartment—Nov. 10, J. Ettelson, 39 South La Salle St., Chicago, 2 story, rein.-con., brick and stone, here. $150,000. G. F. Paulsen, 643 Elmwood Ave., Oak Park, archt.

Ill, Evanston—Apartment—P. F. Olson, archt., 127 North Dearborn St., Chicago, receiving bids 3 story, 75 x 125 ft., rein.-con., brick and steel, Main and Maple Sts., for M. Rutherford, c/o architect. $150,000.

Ia., Marshalltown—School—Nov. 21, Bd. Educ., 3 story, 73 x 147 ft., rein.-con., brick and tile. $160,000. W. Clark, secy. Tyrie & Chapman, 1200-2nd Ave., Minneapolis, Minn., archts. Noted Sept. 29.

Minn., Minneapolis—Bank—Nov. 9, by Federal Reserve Bank, New York Life Bldg. 5 story, steel and brick, plain foundation, Marquette St. $1,000,000. C. Guilbert, 244 Madison Ave., New York, archt. G. Aus, 244 Madison Ave., New York, engr. Noted Sept. 16.

Kan., Lawrence—School—Nov. 22, by Bd. Educ. c/o I. C. Stevenson, 3 story. $495,000. W. B. Ittner, 915 Locust St., St. Louis, Mo., archt. Noted Sept. 29.

Kan., Parsons—Commissary—Nov. 9, State Bd. Educ., Topeka, 2 story, 36 x 70 ft. brick and concrete, here $150,000. R. L. Gamble, 1415 Fillmore St., Topeka, archt.

Mo., St. Louis—Theatre—Nov. 8, by Aubert Photo Play Co., Title Guaranty Bldg., brick, stone and terra cotta, Aubert and Easton Sts. $250,000. P. Klingenschmidt, 5086 Wells Ave., archt. Noted June 30.

Cal., Santa Maria—High School—Nov. 13, by Bd. Educ., 1 and 2 story, 250 x 300 ft., concrete and brick. $400,000. Allison & Allison, 1405 Hibernian Bldg., Los Angeles, archts. Noted Sept. 29.

BIDS RECEIVED

D. C., Wash.—School—Dist. Comrs., 509 Dist. Bldg., 3 story, New Eastern High School, (1) work complete, from G. Hyman, 17th and East Capitol St., (1) $950,000; (2) $700,000 Alternate a, $8,000, b, $1,000, c, $800, d, $6,000, e, $6,000, f, add $5,000, g, $6,200 add bidder's alternative, add $1,700, G. Wyne, Home Life Bldg., (1) $959,700 (2) $715,800 a, $12,000, b, $2,200, c, deduct $700, d, $900, e, $1,500, f, add $5,000, G. A. Fuller Constr. Co., Munsey Bldg. (1) $1,015,000, (2) $749,000, b, $1,300, c, $2,200, d, $5,000, e, $5,000, f, $1,500, g, 6,500, heating and ventilating, from Riggs, Distler & Stringer 216 North Calvert St., Baltimore, Md., $158,987, S. W. Rittenhouse, 1316 Harvard St., N.W., $159,633, W. G. Cornell Co., 923 12th St., N.W., $169,907; plumbing, from Riggs, Distler & Stringer, 216 North Calvert St., Baltimore, Md., $39,800, H. E. Crook Co., 28 Light St., Baltimore, Md., $44,950, M. B. Casey & Co., Wash., $46,000; electric work from H. P. Foley Co., 806-12th St., NW., $32,970, Boyle-Robertson Constr. Co., Evans Bldg., $33,300, A. Lowe, 2030 I St., N.W. $37,000. Noted Oct. 13

N. C., Raleigh—Institute—State School for Blind, 3 cottages, superintendent's home, power house, laundry and auditorium on campus, from Carolina Constr. Co., Hamlet, $279,400. J. W. Stout, Raleigh, $293,000; C. V. York, Citizens Bank Bldg., Raleigh, $293,400. Noted Oct. 6.

O., Cleveland—School—Bd. Educ., East 6th St. and Rockwell Ave., opened bids Oct. 24, 2 story, 160 x 300 ft., brick, steel and concrete, Broadview and Spring Rds., from C. Peterson Co., 4500 Euclid Ave., $364,216; Schirmer-O'Hara Co., 2031 Euclid Ave., $398,974; Tenbusch-Parker Constr. Co., Union Bldg., $404,284. Noted Sept. 8.

O., Elyria — High School — Bd. Educ. opened bids Oct. 24, 2 story, brick, steel and concrete addition to East Technical High School, plain foundation, from L. A. Burgett Co., Lorain, $150,020; J. Kaiser & Bro., Elyria, $150,983; C. Peterson Co., 4500 Euclid Ave., Cleveland, $154,000. Noted Oct. 20.

O., Lorain — High Schools — Bd. Educ. opened bids Oct. 20, (1) 2 story, East 20th and Oakdale Sts., (2) 2 story, East 31st St. and Seneca Aves., brick, steel and concrete, plain foundations, from R. G. Witters, 1539 Harvard Court, N.W., Canton, (1) $179,645, (2) $159,535; L. A. Burgett & Co., Lorain, (1) $181,284; J. Meinhart Contg. Co., Massillon, (2) $154,183. Noted Sept. 29 and Oct. 6.

Cal., Los Angeles—Schools—Bd. Educ., 2 and 1 story, 81 x 91 ft., 60 x 121 ft., and 60 x 107 ft., main building, cafeteria and manual training building, rein.-con., brick and stone, 60th and Vermont Sts., from A. Grant, 1202 West 36th St., $249,000; Bavin & Burch, 173 East Jefferson St., $250,000; G. F. Barber, Los Angeles, $252,221.

Cal., Los Angeles—Hospital—Los Angeles Co., 3 story, 156 x 158 ft., rein.-con., brick and stone, from C. J. Kubach Co., 701 Merchants Natl. Bank Bldg., $216,800; L. A. Planing Mill Co., 1812 Industrial St., $217,727; Weymouth Crowell Co., Los Angeles, $223,200. Noted Oct. 6.

CONTRACTS AWARDED

Conn., Fairfield — Theatre, etc. — J. I. Flint, Town Hall Bldg., 2 story, 65 x 115 ft., brick, hollow tile and steel, plain foundation, Post Rd., to H. D. Moon, Post Rd., and A. W. Blycher, 3142 Fairfield Ave., Bridgeport. $150,000.

N. Y., New York — Apartments — Absor Realty Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., three 5 story, brick, steel and stone, plain foundations, McClellan St., by day labor. $150,000 each.

N. Y., New York—Apartment—I. Polstein, 280 Madison Ave., 11 story, 95 x 125 ft., brick, steel and stone, plain foundation, 1125 Madison Ave., by day labor. $750,000. G. F. Pelham, 200 West 72nd St., archt. and engr.

N. Y., New York — Apartment — Wacht Constr. Co., c/o J. M. Felson, archt. and engr., 1133 Bway., 5 story, 100 x 100 ft., brick, steel and stone, plain foundation, Grand Concourse and 198th St., by day labor. $200,000.

N. Y., New York — School — Bd. Educ., 500 Park Ave., P. S. 58, East 176th St. and Washington Ave., to P. J. Brennan & Son, 624 Madison Ave. $271,730. Noted Oct. 27.

Pa., Erie—Clubhouse—B. P. O. E. Lodge, 5 story, 42 x 80 ft., Peach and 8th Sts., to H. J. Conrath, Ariel Bldg., $212,000.

Pa., Phila. — Office — J. W. Hollawell, Broad and Chestnut Sts., 10 story, 42 x 78 ft., brick and steel, plain foundation, 1513-1521 Sansom St., to Doyle & Co., 1519 Sansom St., $250,000.

Pa., Phila—Office—Medical Arts Realty Co. will build 15 story, 40 x 117 ft. rein.-con., brick and steel, plain foundation, 16th and Walnut Sts., by day labor. $300,000.

Pa., Wilkinsburg (Pittsburgh P. O.)—School—Bd. Educ. 3 story, Johnstown School near Ardmore Blvd., to C. H. Kerr Co., Vanadium Bldg., Pittsburgh, $150,000.

W. Va., Fairmont—Normal School—Bd. Control, 3½ story, 50 x 165 ft., brick, stone and steel addition, to W. P. Thurston Co., 1103 East Main St., Richmond, Va. $150,000.

La., Pineville — Dormitory — Bd. Comrs. Louisian Hospital for Insane, Dining and Assembly Halls, 3 brick dormitories, to W. J. Quick, Lake Charles, $231,000; dining and assembly halls, to W. A. Prather, Baton Rouge, $201,300. Noted Sept. 15.

O., Columbus—School—Bd. Educ., Town and High Sts., general contract Olentangy School, 2 story, 130 x 170 ft., brick and concrete, Poplar Ave., to D. W. McGrath & Sons Co., 1st Natl. Bank Bldg., $132,500; plumbing and heating work, to S. Esswein Co., 96 West Broad St. 37,774. Noted Oct. 6.

O., Middletown — Hotel — Middletown Hotel Co., 5 story, 130 x 168 ft., brick, stone, steel and concrete, to D. P. Robinson Co., Inc., 125 East 46th St., New York, $400,000. Noted Sept. 15.

Ind., Elkhart—Bank—St. Joseph Valley Bank, 214 Main St., 2 story, 70 x 105 ft., brick and stone, Main and Marion Sts., to Hoggson Bros., 485-5th Ave., New York, $225,000. Noted Sept. 8.

Buildings (Continued)

Mich., Detroit — Clubhouse — Romaine Temple, c/o P. R. Rossello, archt., Congress Bldg., 2 story, 60 x 118 ft. rein.-con., brick and steel, plain foundation, Farnsworth Ave., to Reliable Painting & Decorating Co., 230 West Lafayette Ave., $150,000.

Mich., Detroit — Hospital — Bd. Health, 1415 St. Antoine St., 3 story, rein.-con., brick and steel addition, Hamilton Blvd., to A. W. Kutche & Co., 623 Ford Bldg., $176,973. Noted Oct. 27.

Mich., Wyandotte—School—Bd. Educ., 3 story rein.-con., brick and stone, plain foundation, to F. R. Patterson Constr. Co., 1921 Ford Bldg., Detroit, $1,000,000.

Ill., Centralia—Hospital—St. Mary's Hospital, 207 North Elm St., 3 story, 40 x 100 ft., rein.-con., brick and stone, to G. Tilman, Centralia, $200,000. Noted Oct. 13.

Ill., Chicago—Apartment—F. J. Groth, 1063 Ainslee St., 3 story, 89 x 125 ft., rein.-con., brick and steel, at 1616 Jonquil Terrace, to Olson Bros., 6200 Evans Ave., $150,000. Noted Oct. 20.

Ill., Chicago — Office — S. Rubin, 3221 Douglas Blvd., 2 story, 110 x 141 ft., rein.-con., brick, steel and terra cotta, Roosevelt Rd. and Avers Ave., to Samkowitz Bros. Co., 3547 West 13th St. $150,000. Noted Oct. 27.

Ill., Chicago—Temple—South Side Masonic Temple Assn., 624 West 71st St., 4 story, 105 x 108 ft., brick and terra cotta, Green and 64th Sts., to Nelson & Lind, 7046 Stony Island Ave., $250,000. Noted Sept. 22.

Ill., Harrisburg—High School—Bd. Educ., 2 story, 140 x 140 ft., brick, steel and concrete, to Murch Bros., Ry. Exch. Bldg. St. Louis Mo., $300,000. Noted Oct. 13.

Ia., Sioux City—Y. W. C. A., Commerce Bldg., 4 story, rein.-con. brick, stone and steel, 613-6th St., to Biesche & Sanborn, 514 Jackson St., $250,000. Noted Mar. 3.

Kan., Wichita—Bank and Office-Fourth Natl. Bank, c/o D. F. Callahan, pres., 6 story, 50 x 140 ft., to Siedhoff Constr. Co., 126 East 1st St. $200,000. Noted Sept. 29.

Neb., Hebron—Gymnasium and Auditorium—Hebron Academy, 2 story, rein.-con., brick and stone, to R. O. Stake, 346 North 28th St., Lincoln. $150,000. Noted Oct. 27.

Neb., North Platte—Court House—Lincoln Co 3 story, 70 x 112 ft., rein.-con., brick, stone and tile, to McMichael Bros., North Platte. $200,000. Noted Oct. 6.

Tex., Cisco—School—For 3 story, brick and concrete, general contract to J. E. Johnson Constr. Co., Waco, $132,000. Noted Sept. 29.

Okla., Oklahoma City — Club — Hawk & Parr, archts., Magnolia Bldg., 6 story, 125 x 140 ft., rein.-con., brick and stone, to C. M. Dunning Constr. Co., Hershkowitz Bldg., for Oklahoma Club, c/o J. Shartel, pres. $350,000. Noted Oct. 13.

Que., Montreal — Hospital — Notre Dame Hospital, Notre St. E., 5 story, 75 x 100 ft., concrete, brick and steel, Panet and Sherbrooke Sts., to A. Gratton, 5th Ave. $500,000.

Que., Montreal — Office — Crane Co., St. Patrick St., 6 story, 40 x 75 ft. concrete, brick and steel, on Beaver Hall Hill, to Anglin-Norcross Co., Ltd., Victoria St. $200,000.

Que., Quebec—Hotel—Canadian Pacific Ry., Windsor Sta., Montreal, 17-20 story, brick, terra cotta, steel and stone addition to Chateau Frontenac, Des Carriereres Ave., here, to Anglin & Norcross Co., Ltd., Victoria St., Montreal. $3,500,000 cost plus percentage basis.

Ont., Walkerville—High School—School Bd., 2 story, 42 room, brick, steel and stone, Huron St., to S. E. Dinsmore & Co., Royal Bank Bldg., Windsor, $498,000; heating, plumbing and ventilating to Drake-Avery Co., 103 John St. N., Hamilton. Noted July 7.

Federal Government Work

BIDS DESIRED

Pa., Pittsburgh—Scows—Nov. 23. U. S. Engineer, 6 steel dump scows; adv. this issue.

Md., Baltimore—Dredging—Nov. 28, U. S. Engineer, dredging in harbor, here; adv. this issue.

D. C., Bellevue—Chimney—Spec. 4534—Nov. 16, Bureau Yards & Docks, Navy Dept., Wash., radio chimney, brick or concrete, here. Noted Oct. 27.

Ga., Savannah—Dredging—Nov. 30, U. S. Engineer, P. O. Bldg., dredging in Brunswick Harbor; adv. this issue.

Tenn., Nashville—Derrick Boat—Nov. 16, U. S. Engineer, Custom House, steel derrick boat, 5 x 35 x 77 ft. F. L. Slattery, Lt. Col.; adv. this issue.

O., Portsmouth—Mailing Vestibule—Nov. 18, Treas. Dept., Wash., D. C., at U. S. Post Office, here. J. A. Wetmore, acting superv. archt.; adv. this issue.

Wash., Keyport—Tower—Spec. 4538—Nov. 23, Bureau Yards & Docks, Navy Dept., Wash., D. C., 210 ft. radio tower, here. Noted Oct. 27.

Cal., Eureka—Tower—Spec. 4533—Nov. 23, Bureau Yards & Docks Navy Dept., Wash., D. C., 300 ft. radio tower, here. Noted Oct. 27.

Cal., San Francisco—Dredging Plant—Nov. 21, U. S. Engineer, 2nd Dist., 240 Montgomery St., hire and operation dredging plant for Sacramento and San Jioquin Rivers and tributaries.

BIDS RECEIVED

Va., Norfolk—Repairs—Spec. 4535—Bureau Yards & Docks, Navy Dept., Wash., D. C., repairs to roof and attic, Marine Barracks, here, from W. F. Martins, 53 Franklin St., Rochester, N. Y., $3,650 (70 days); H. M. Lucas, 115 Maple St., Portsmouth, $3,840 (60 days); Fanning & Quinn, 118 Bd. of Trade Bldg., Norfolk, $3,900. Noted Oct. 27.

W. Va., Charleston—Electric Cable System—Spec. 4537—Bureau Yards & Docks, Navy Dept., Wash., D. C., electric cable system, here, (1) work complete, from Greenwood Eng. Co., 407 Stock Exch. Bldg., Phila., (1) $82,022, (2) $73,726, (3) $10,000, (4) $64,594, (5) $51,035; Riggs, Distler & Stringer, 216 North Calvert St., Baltimore, Md., (1) $83,595 (120 days), (2) $72,615, (3) $12,814, (4) $11,977, (5) $13,385 (30 days); Ranson & Anderson Co., 136 Liberty St., New York, (1) $88,240, (2) $74,745, (3) $13,495, (4) $70,980, (5) $73,980. Noted Oct. 13.

N. C., Cape Hatteras—Engine House—Spec. 4522—Bureau Yards & Docks, Navy Dept., Wash., D. C., engine house, at Naval Radio Sta. here, (1) work complete, from G. E. Ward, 417 East 34th St., New York, (1) $3,243 (45 days), (2) deduct $300; A. R. Masters Co., Hampton, Va., (1) $3,397 (45 days), (2) $3,099 (40 days); W. F. Martins, 53 Franklin St. Rochester, N. Y., (1) $3,495 (60 days), (2) $2,976 (50 days). Noted Oct. 20.

CONTRACTS AWARDED

D. C., Anacostia—Storehouse—Spec. 4516—Bureau Yards & Docks, Navy Dept., Wash., storehouse for pigeon supplies, here, to W. E. Mooney, 505 Evans Bldg., Wash., $2,342 (30 days). Noted Oct. 20.

Va., Quantico—Supply Main—Spec. 4513—Bureau Yards & Docks, Navy Dept., Wash., D. C., c.i. supply main, here, to Pittsburgh-Des Moines Steel Co., 959 Munsey Bldg., Wash., D. C., $8,513 (60 days). Noted Oct. 20.

Mich., Detroit—Timber Work, etc.—U. S. Engineer timber work and repairing dikes, St. Clair Flats Canal, to Candler Dock and Dredge Co., 305 Moffat Bldg., $11,858.

Ill., Chicago—Recreation Building—Treas. Dept., Wash., D. C., recreation building complete, incl. mechanical equipment, at U. S. Pub. Health Serv. Hospital, Broadview, here, to C. B. Johnson & Son, 1810 Conway Bldg., $96,240. Noted Oct. 27.

Tex., Port Arthur—Operating Building—Spec. 4511—Bureau Yards & Docks, Navy Dept., Wash., D. C., operating building at radio station, here, to W. F. Martins, 53 Franklin St., Rochester, N. Y., $4,925 (130 days). Noted Oct. 20.

Miscellaneous

PROPOSED WORK

Sea Wall—Winthrop, Mass.—State Metropolitan Park Comn., 18 Tremont St., Boston, rejected bids 3,000 ft. concrete sea wall. $250,000. J. R. Bablin, 18 Tremont St., Boston, engr. Noted Oct. 27.

Asphaltic Cement—New York, N. Y.—H. Bruckner, pres. Bronx Boro, Municipal Bldg., rejected bids opened Oct. 24, furnishing and delivering 300 ton asphaltic cement. $10,000. Work will be readvertised. Noted Oct. 27.

Incinerator — Hamtramck, Mich. — Plans addition to garbage incinerator plant. $25,000. G. Jerome, 1331 Majectic Bldg., Detroit, engr.

Swimming Pool — Davenport, Ia. — Making plans 150 x 200 ft., rein.-con., swimming pool. $45,000. L. W. Christensen, clk.

Stadium—Minneapolis, Minn.—Bd. Educ. having plans prepared for stadium at Central High School, 4th Ave. S. and 35th St., concrete wall and stands. $50,000. G. F. Womrath, business supt. E. H. Enger, 305 City Hall, engr.

Park Improvements—Joplin, Mo.—See "Buildings."

Swimming Pools, etc.—Joplin, Mo.—Making plans swimming pools and septic tank at Park. $50,000. S. Ashcraft city engr.

Transit Shed, etc.—Tacoma, Wash—Port of Tacoma, having plans prepared and takes bids about Nov. 15, Pier 2, dredging, driving concrete piling and constructing transit shed, also extending Pier 1. $600,000 and $300,000 respectively.

Dike — Portland, Ore. — Multnomah Co. Impvt. Dist. plans 12 mi. dike at lower end of Sauvies Island. $200,000. Project includes pumping plant. R. A. Garrow, 617 East 10th St., N., advisory engr.

Incinerator—Chatham, Ont.—Plans incinerator. $60,000. C. H. R. Fuller, City Hall, engr.

BIDS DESIRED

Piles—Portland, Me.—Nov. 28, Directors of Port, 67 Commercial St., 5,300 creosoted piles. H. F. Merrill, pres.; adv. this issue.

Dike—Revere, Mass—Nov 28, at office of P. Conley, purch. agent, City Hall, repairing earthen dike and filling in marsh land at Charles Frederick Park; adv. this issue.

Traveling Crane, etc.—Camden, N. J.—Nov. 11, by Harbor Comm., City Hall, 3 ton traveling electric crane locomotive type, 2 single drum portable electric winches, and 1 electric tractor with 8 trailer trucks. G. W. Bradley, chn.; adv. this issue.

Garbage Disposal—Charleroi, Pa.—Nov. 8, garbage disposal plant. $40,000. G. Allen, city engr.

Oil Tanks and Boilers—New Orleans, La.—Dec. 23, by Sewerage and Water Bd., two 55,000 bbl. oil tanks and 1500-1800 H.P. water tube boilers; A. G. Moffat, secy., adv. this issue.

Motor Truck—Neenah, Wis.—Receiving bids for motor truck for street dept. C. Tolverson, 143 3rd St., chn. Street Comn.

Elevator, Conveyor, etc.—Lincoln, Nebr.—Nov. 8, by T. H. Berg, city clk., one pivoted bucket elevator conveyor, one coal crusher, one 30 in. apron conveyor and one traveling weigh larry, for City Water & Electric Light Plant. $23,000. G. M. Bates, city engr.

Suspension Supports—Lincoln, Neb.—Nov. 8, by T. H. Berg, city clk., two 500 hp. water tube boilers, city to furnish suspension supports. $23,000. G. M. Bates, city engr.

BIDS RECEIVED

Lamp Posts—North Bergen (Weehawken P. O.), N. J.—Hudson Co. Blvd. Comn. (Jersey City) opened bids Oct. 26, 132 lamp posts for Hudson Blvd. between Fisher Ave. and Bergen Co. line here, from W. J. Coleman, 29 Willow Court, Jersey City, $14,658; W. J. Daly, 118 Jewett Ave., Jersey City, $14,968. Noted Oct. 20.

Trestles and Bins—Wash., D. C.—Dist. Comrs., 509 Dist. Bldg., reconstruction trestles and bins, from R. J. Mansfield, 135 William St., New York, $14,980; Carleton Co., 151 West 42nd St., New York, $17,955; H. P. Giddings, 139-13th St., N. E., $19,495. Noted Oct. 6.

Subway—Detroit, Mich.—For subway, approaches and grade separation at Military Ave. under New York Central and Wabash R.R. tracks, from W. E. Lennane, 2631 Woodward Ave., $110,984; F. H. Davis, 1838 Penobscot Bldg., $121,851; J. Bollin Co., 1259 Book Bldg., $123,522. Noted Oct. 6.

CONTRACTS AWARDED

Binder Stone, etc.—Brooklyn, N. Y.—E. Riegelmann, boro pres., Boro Hall, furnishing and delivering 1,500 cu.yd. binder stone, to Calvin Tomkins Co., 30 Church St., New York, $2.19 per cu.yd.; 2,800 cu. yd. asphalt sand, 1,200 cu.yd. 1½ in. gravel and 1,500 cu.yd. paving sand, to Hygrade Builders Supply Co., 6th St. and 2nd Ave., $1.39, $2.64 and $1.29 respectively; 940 ton limestone or other suitable inorganic dust, to E. Meyer Co., 25 Church St., New York, $7.35; 1,500 bbl. Portland cement, to M. M. Canda, 184 3rd St., $2.75; 25,000 grade 1 granite paving blocks, to J. Leopold & Co., Inc., 233 Bway., New York, $130; 1,200 cu.yd. 1½ in. broken stone, to B. Turecamo Contg. Co., 8706 Bay 12th St., $2.72. Noted Oct. 20.

Binder Stone, etc.—New York, N. Y.—H. Bruckner, pres. Bronx Boro, Municipal Bldg., furnishing and delivering 2,000 cu. yd. binder stone, to Calvin Tomkins Co., 30 Church St., $3,660; 300 ton limestone or other suitable inorganic dust, to E. Meyer & Co., 25 Church St., $2,400. Noted Oct. 27.

White Way — Duncan, Okla. — See "Industrial Works."

OFFICIAL PROPOSALS

Bids: Nov. 21.

Eighth Street Bascule Bridge

Sheboygan, Wis.

Sealed proposals will be received at this office until Nov. 21, 1921, at three o'clock p.m. for constructing a Bascule Bridge across the Sheboygan River on Eighth Street in the City of Sheboygan, Wisconsin, according to plans and specifications on file in this office. The field work is to begin ten days from the date of award of contract. Separate bids will be received on substructure and superstructure, also bids will be received for the entire work.

The substructure work, with the exception of the concrete roadway, is to be completed by June 15, 1922. The entire substructure and superstructure work is to be completed by Dec. 15, 1922. If the substructure contractor fails to complete his work as herein specified he shall pay to the City of Sheybogan as liquidated damages the sum of $250 for each and every day's delay in completing his contract. If the superstructure contractor fails to complete his work as herein specified he shall pay to the City of Sheybogan as liquidated damages the sum of $250 per day for each and every day's delay in completing his contract. If the entire work is awarded to one contractor, and such contractor fails to complete his work by Dec. 15, 1922, he shall pay to the City of Sheboygan as liquidated damages the sum of $500 for each and every day's delay in completing his contract.

Should the actual construction work at the bridge site be delayed at the discretion of the City of Sheboygan, such delayed period will be added to the time allotted to each contractor for the completion of his work.

Bonds, certified check or cash to the amount of 30 per cent of bid to accompany each proposal. All moneys deposited will be returned to the unsuccessful bidders on award of contract and to successful bidders when contract is entered into. All bids must be stated in writing and in figures, otherwise they will not be considered.

Plans and specifications will be furnished to prospective bidders on receipt of $10 as a guarantee of their safe return.

The Board reserves the right to reject one or all bids.

C U. BOLEY,
JOHN KUMMER,
Board of Public Works.

Countersigned:
JOHN KUMMER,
Comptroller.

Bids: Nov. 11.

Crane, Winches, Trucks

Camden, N. J.

Sealed proposals will be received at Room 11, City Hall, Camden, N. J., until November 11th 1921, at 8 o'clock, P.M., and then and there publicly opened for: One (1) three-ton Traveling Electric Crane locomotive type Two (2) single Drum Portable Electric Winches two heads One (1) Electric Tractor with Eight Trailer Trucks.

Specifications on file at office of Harbor Engineer, Room 11 City Hall, Camden, N. J.

Each proposal must be accompanied by cash or certified check to the amount of $100,00, conditioned that the party making the bid will execute a contract, on being awarded same.

The Committee reserves the right to reject any or all bids and to waive any defect or informality in any bid, should it be deemed to the best interest of the city so to do.

Address proposals marked "Proposals for Elec. Equipments to Spruce St. Pier."

GEORGE W. BRADLEY, Chairman of Committee, City Hall, Camden, N. J.

The publication of an advertisement on this page is an official notice that bids are wanted from other than local bidders.

It is also a guarantee that maximum competition is invited because Engineering News-Record is the *one* nationally recognized medium for Proposal advertising. Its Searchlight Section is read each week by nearly every worth-while contractor in this country who bids on public work outside his own city.

Official Proposals reaching our office in first mail Tuesday morning (10 o'clock) can usually be published in the issue out the following Thursday. Special price for Official Proposals, 40 cents a line.

Bids: Nov. 22.

Road Construction

Harrisburg, Pa.

PENNSYLVANIA STATE HIGHWAY DEPARTMENT, HARRISBURG, PA.—Sealed proposals will be received at the State Capitol until 10 a.m., Nov. 22, 1921, when bids will be publicly opened and scheduled and contract awarded as soon thereafter as possible for the reconstruction of 32,669 linear feet of One Course Reinforced Concrete Pavement 16 feet wide, being situated in Montgomery and Banks Townships and Glen Campbell Borough, Indiana County, and Burnside Township, Clearfield County, on State Highway Route No. 262; also 21,221 linear feet of One Course Reinforced Concrete Pavement 16 feet wide, being situated in Green, Grant and Montgomery Townships, Indiana County, on Route No. 262; also 1,483 linear feet of One Course Reinforced Concrete Pavement 18 feet wide, being situated in Towanda Borough, Bradford County, Application No. 1700, and 11,497 linear feet of grading and drainage of roadway 26 feet wide, being situated in Otto and Foster Townships, McKean County, on Route No. 211. Bidding blanks and specifications may be obtained free and plans upon payment of $2.50 per set, upon application to State Highway Department, Harrisburg. No refund for plans returned. They also can be seen at office of State Highway Department, Harrisburg, 1001 Chestnut Street, Philadelphia, 119 Federal Street, and N. S. Pittsburgh. LEWIS S. SADLER, State Highway Commissioner.

Bids: Nov. 12.

Paving

Charlotte, N. C.

Sealed proposals for the paving of certain streets in the city of Charlotte will be received by the Board of Commissioners up to eleven o'clock A.M. on the twelfth day of November, 1921.

The work to be done consists of approximately 208,000 square yards of paving.

Bids will be received on various types of paving.

A certified check equal to five per cent of the amount of the bid and made payable to the treasurer of the City of Charlotte will be required to accompany each bid.

Plans may be seen and specifications obtained at the office of the City Engineer.

Contract will not be entered into until all legal steps have been taken and ratified.

The right is reserved to reject any or all bids or any part of a bid.

By order of the Board of Commissioners,
JOSEPH FIRTH, W. S. STANCILL,
City Engineer. Com. of Public Works.

Bids: Nov. 17.

Road Work

Charleston, W. Va.

Sealed proposals will be received by the State Road Commission of West Virginia at its offices in Charleston, West Virginia, until two o'clock p.m. on the 17th day of November, 1921, and at that time and place publicly opened and read, for the construction of the following sections of State Roads:

PROJECT 3001—PUTNAM COUNTY—6.45 miles of the Midland Trail between the end of Project 45 and a point near the Kanawha County Line, for grading, draining and paving with Bituminous Penetration Macadam.

PROJECT 3042—KANAWHA COUNTY—2.6 miles of the Midland Trail between a point near the Putnam County Line and the end of the paving west of St. Albans, for grading, draining and paving with Bituminous Penetration Macadam.

PROJECT 3040—FAYETTE COUNTY—6.8 miles of the Midland Trail between Longacre and Kanawha Falls, for grading, draining and paving with Bituminous Penetration Macadam.

PROJECT 3073—OHIO COUNTY—2 miles of the National Pike west of the Pennsylvania State Line, for grading, draining and paving with Concrete.

PROJECT 3005—WOOD COUNTY—3.5 miles of Parkersburg-Williamstown Road, for grading, draining and paving with Concrete.

PROJECT 3100—GILMER COUNTY—2 miles of the Glenville-Weston Pike from end of Project 82-B to the Lewis County line for grading and draining.

PROJECT 3004—MARION COUNTY—1.75 miles of the Fairmont and Morgantown Pike from end of present concrete road to the Monongalia County Line for grading and draining.

PROJECT 3003—MONONGALIA COUNTY—4 miles of the Fairmont and Morgantown Pike between Little Indian Creek and the Marion County line for grading and draining.

PROJECT 3010—MINERAL COUNTY—10.35 miles of the Northwestern Turnpike from New Creek to the Hampshire County Line for grading and draining.

Proposals will be received only upon state standard forms, in accordance with plans, specifications and estimate of quantities therefor, which standard forms, plans specifications and estimates may be obtained from the office of the Division Engineer, in whose territory the proposed construction is located, or from the office of the State Road Commission at Charleston, West Virginia.

All proposals must be accompanied by a certified check or draft in an amount equal to 5 per cent of the total amount of the proposal. The right is reserved to reject any and all proposals.

(Signed) STATE ROAD COMMISSION.
By E. B. CARSKADON, Secretary.

Bids: Nov. 9.

High Pressure Fire System

Girardville, Pa.

Sealed bids will be received at the office of the Borough Council at Girardville, Pa. on or before 7:30 P.M. on Wednesday November 9, for the construction of a high pressure fire system consisting of about 2 miles of 10" or 8" and 6" mains, valves and hydrants. Materials to be furnished by the Borough.

Sealed bids will also be received at the same time and place for cast iron pipe, specials, valves hydrants, gate-boxes, lead and jute.

The right to accept or reject any or all bids is reserved. Plans and specifications may be obtained at the office of the Borough Council, Girardville, Pa. or at the office of the Engineer, F. H. Shaw, 314 Breneman Bldg. Lancaster, Pa.

BOROUGH OF GIRARDVILLE
By EDWARD PURCELL
Clerk of Council
F. H. SHAW Engineer.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 21	Detroit, Mich.	Nov. 3
Nov. 22	Graham, Tex.	Nov. 10
Nov. 22	Monroe, Mich. Adv. Nov. 17.	Nov. 17
Dec. 1	Decatur, Tex.	Nov. 10
Dec. 1	Cleveland O.	Nov. 10
Dec. 5	Syracuse, N. Y.	Nov. 17
Dec. 19	Syracuse, N. Y. Adv. Nov. 17.	Nov. 17

SEWERS

Nov. 21	Lansing, Mich. Adv. Nov. 17.	Nov. 17.
Nov. 21	Montreal, Que.	Nov. 17
Nov. 22	Wallington, N. J.	Oct. 20
Nov. 22	West Palm Beach, Fla.	Nov. 17
Nov. 22	North Chicago, Ill.	Nov. 17
Nov. 28	Winona, Minn.	Nov. 17
Nov. 28	Benton, Ill.	Nov. 17
Nov. 29	Spokane, Wash.	Nov. 17
Nov. 29	Newark, N. J.	Oct. 27
Dec. 1	Salt Lake City, Utah	Nov. 17
Dec. 13	Harrison, N. J.	Nov. 17

BRIDGES

Nov. 21	Sheboygan, Wis.	Nov. 3
Nov. 22	Maryland Adv. Nov. 17.	Nov. 17
Nov. 22	Denton, Tex.	Nov. 17
Nov. 29	Shadesville, O.	Nov. 3
Nov. 29	Maryland Adv. Nov. 17.	Nov. 17
Nov. 29	North Carolina	Nov. 17
Dec. 2	West Virginia Adv. Nov. 17.	Nov. 17
Dec. 8	Morgantown, W. Va. Adv. Nov. 17.	Nov. 17
Dec. 10	Madison, W. Va. Adv. Nov. 17.	Nov. 17
Dec. 13	Phila., Pa. Adv. Nov. 3 and 17.	Nov. 17
Dec. 19	Phila., Pa.	Nov. 17

DAMS

Dec. 17	Phoenix, Ariz. Adv. Nov. 17.	Nov. 17

EXCAVATION AND DREDGING

Nov. 25	Clinton, Ky.	Nov. 17
Dec. 5	Yankton S. D.	Nov. 17
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Bids Close		See Eng. News-Record
Nov. 21	Louisiana	Nov. 10
Nov. 21	Los Angeles, Cal.	Nov. 10
Nov. 21	Chicago, Ill.	Nov. 17
Nov. 22	Pennsylvania Adv. Nov. 3 to 17.	Nov. 3
Nov. 22	New York Adv. Nov. 10 and 17.	Nov. 10
Nov. 22	Massachusetts	Nov. 17
Nov. 22	Quincy, Ill.	Nov. 17
Nov. 22	Chariton, Ia.	Nov. 17
Nov. 22	Long Island City, N. Y.	Nov. 17
Nov. 22	Phila., Pa.	Nov. 17
Nov. 22	Denton, Tex.	Nov. 17
Nov. 23	Newberry S. C.	Nov. 17
Nov. 28	Cleveland, O.	Nov. 10
Nov. 28	California	Nov. 17
Nov. 29	Wilmington, N. C.	Nov. 10
Nov. 29	Alabama	Nov. 10
Nov. 29	Vermont Adv. Nov. 17.	Nov. 17
Nov. 29	Minnesota	Nov. 17
Nov. 30	Minnesota	Nov. 17
Dec. 1	Woodbury, N. J. Adv. Nov. 17.	Nov. 17
Dec. 2	Alabama	Nov. 10
Dec. 7	Salina, Kan.	Nov. 3
Dec. 13	Morton, Wash.	Nov. 17
Dec. 13	Atchinson, Kan.	Nov. 17
Dec. 16	Gastonia, N. C. Adv. Nov. 17.	Nov. 17
Dec. 19	Elmhurst, Ill.	Nov. 17
Dec. 20	Kansas City, Kan.	Nov. 17

INDUSTRIAL WORKS

Nov. 20	Pottstown, Pa.	Nov. 17
Nov. 22	St. Louis, Mo.	Nov. 17
Dec. 1	Charlotte, N. C.	Nov. 17
Dec. 1	Phila., Pa.	Nov. 17
Jan. 1	Cumberland, Wis.	Nov. 17

BUILDINGS

Nov. 21	Marysville, Pa.	Nov. 10
Nov. 21	Madison, Wis.	Nov. 10
Nov. 21	Detroit, Mich.	Nov. 17
Nov. 21	Grosse Point Park (Detroit P. O.), Mich.	Nov. 17
Nov. 22	Lawrence, Kan.	Nov. 3
Nov. 22	Mark Center, O.	Nov. 10
Nov. 22	Detroit, Mich.	Nov. 17
Nov. 22	St. Louis, Mo.	Nov. 17
Nov. 22	Peoria, Ill.	Nov. 17
Nov. 23	Toledo, O.	Nov. 3
Nov. 23	Wilson, N. C.	Nov. 3
Nov. 23	Salina, Kan.	Nov. 17
Nov. 26	Lakewood (Cleveland P. O.), O.	Nov. 17
Nov. 29	Dayton, O.	Nov. 17
Dec. 1	Detroit, Mich.	Nov. 17
Dec. 2	Elizabeth, N. J.	Nov. 17
Dec. 2	Dayton, O.	Nov. 17
Dec. 5	Palmyra, N. J.	Nov. 10
Dec. 6	Thiells, N. Y. Adv. Nov. 17.	Nov. 17
Dec. 7	Saginaw, Mich.	Nov. 17
Dec. 10	Gainesville, Fla.	Nov. 10
Dec. 12	Tallahassee, Fla.	Nov. 17
Dec. 14	Huron, S. D.	Nov. 17
Dec. 15	Dayton, O.	Nov. 17
Dec. 15	Lawrence, Mass.	Nov. 17
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Jan. 1	Detroit, Mich.	Nov. 17
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Bids Close		See Eng. News-Record
Nov. 21	Buildings — Walla Walla, Wash.	Oct. 27
Nov. 21	Dredging Plant—San Francisco, Cal.	Nov. 3
Nov. 22	Buildings—Rutland, Mass.	Oct. 27
Nov. 22	Monument—Vergennes, Vt. Adv. Oct. 27 to Nov. 17.	Oct. 27
Nov. 23	Tower—Keyport, Wash.	Nov. 3
Nov. 23	Tower—Eureka, Cal.	Nov. 3
Nov. 23	Scows—Pittsburgh, Pa. Adv. Oct. 27 to Nov. 17.	Nov. 3
Nov. 25	Mailing Vestibule, etc.—Findlay, O.	Nov. 17
Nov. 28	Dredging—Baltimore, Md. Adv. Nov. 3 to 17.	Nov. 3
Nov. 30	Dredging—Savannah, Ga. Adv. Nov. 3 to 17.	Nov. 3
Nov. 30	Mechanical Equipment — Walla Walla, Wash.	Nov. 17
Nov. 30	Water Supply System—Yorktown, Va. Adv. Nov. 17.	Nov. 17
Dec. 1	Riprap and Breakwater — Galveston, Tex.	Nov. 17
Dec. 1	Road—Denver Col.	Nov. 17
Dec. 2	Refrigerating Plant, etc. — Norfolk, Va.	Nov. 17
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6
Dec. 28	Valve—Denver, Col. Adv. Nov. 17.	Nov. 17
Dec. 29	Structures—Savage, Mont. Adv. Nov. 17.	Nov. 17

MISCELLANEOUS

Nov. 21	Ornamental Lighting System —Oshkosh, Wis.	Nov. 17
Nov. 22	Snow Loader—Phila., Pa.	Nov. 17
Nov. 22	Caterpillar Tractor — Virginia, Minn.	Nov. 17
Nov. 23	Coal Trestle, etc.—Orient, O.	Nov. 17
Nov. 28	Dike—Revere, Mass.	Nov. 3
Nov. 28	Piles—Portland, Me.	Nov. 3
Nov. 29	Ornamental Lighting System —Long Branch, N. J. Adv. Nov. 17.	Nov. 17
Nov. 30	Stadium—Chicago, Ill.	Oct. 20
Nov. 30	Heating and Plumbing System —Rochester, N. Y.	Nov. 17
Dec. 1	Foundation—Chicago, Ill.	Nov. 10
Dec. 23	Oil Tanks and Boilers—New Orleans, La. Adv. Nov. 3 to 17.	Nov. 3

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

Md., Brunswick — Making preliminary plans 3,000,000 gal. rein.-con. reservoir, 200 ft. x 200 ft. x 12 ft. deep, 12 ft. above level of ground. E. C. Crum, City Hall Bldg., Frederick, engr.

Fla., Ft. Lauderville—Voted $27,500 bonds for extending watermains, $10,000 paving Andrews Ave., and $2,500 for city's share paving North and South River Sts.

Fla., Inverness — Voted $45,000 bonds, mains and pumping equipment.

O., Germantown—Voted $150,000 bonds for waterworks, incl. pumping plant, laying mains, valves and house connections, etc.

Ill., Savanna—Making plans pumping station and extending mains. $30,000. A. Schnell, 915 North 2nd St., Clinton, Ia., engr.

Ill., Quincy—Making plans addition and extension to plant, additional mains, centrifugal pumps, relining reservoir and water basins, concrete. $200,000. W. R. Gelston, Quincy, engr. Noted March 24.

Mich., River Rouge — Rejected bids opened Nov. 1, for 339 ft., brick, concrete or segment block tunnel, 13 ft. in diam., two 71 ft. shafts, and mains under Rouge River. Work will be readvertised. Noted Nov. 10.

Kan., Baxter Springs—Takes bids about Jan. 1, improving waterworks plant, pipe line and extension. $50,000. J. B. Hodgdon, Baxter Springs, engr.

Kan., Larned—Making plans laying new mains, improving pumping station and reservoir. $90,000. W. B. Rollins & Co., Ry. Exch. Bldg., Kansas City, Mo., engrs.

Waterworks (Continued)

Minn., Henning—Making plans waterworks. $20,000. O. L. Scorheim, village recdr. Druar & Milinowski 500 Globe Bldg., St. Paul, engrs.

Wyo., Thermopolis—Election Nov. 29, $50,000 bonds extending distributing system, etc. W. O. P. Fullerton, Thermopolis, engr.

Mo., Caruthersville—Plans improvements to waterworks, incl. addition to pumping station, new mains and reservoir. $60,000. Engineer not selected.

Mo., Poplar Bluff—Making plans concrete settling basin, steam power or electric pumping station. $500,000. S. Pottinger, clk., E. C. Neckey, Poplar Bluff, engr.

Col., Greeley—Plans replacing 40 mi. conduit from here to Poudre Canon. Plans provide replacing it in installments; present plans include laying 1 or 2 mi. new conduit next spring. Total $1,000,000. C. D. Todd, mayor.

Col., Montrose—Plans prepared removing 3 mi. wooden pipe and replacing with iron pipe. Will take bids about May 1, excavating and back filling trench. Pipe will be laid by town forces. $35,000. M. Curtis, clk.

Col., Seibert—Water system, water to be pumped from wells by electrical equipment, to Beeson Mchy. Co., 308 Mutual Bldg., Kansas City, Mo., $50,000. Noted July 7.

Ont., Goderich—Having revised plans prepared for chlorination and filtration plant. $55,000. F. H. Darling, 47 Home Bank Bldg., Hamilton, engr. Noted Aug. 11.

Ont., Smiths Falls — Provincial Bd. Health, Toronto, ordered city to install filtration system in connection with waterworks plant. Engineer not selected.

BIDS DESIRED

N. Y., Syracuse—Dec. 5, by R. D. Rodney, clk. Bd. Contract & Supply, furnishing pipe, valves and laying 32,000 lin. ft. 36 in. conduit line known as Sect. 1 of 3rd Skaneateles-Syracuse Conduit. $540,000. H. C. Allen, city engr. This corrects report in Oct. 27 issue.

N. Y., Syracuse—Dec. 19, by Bd. Contract & Supply, City Hall, c.i. pipe and specials or steel pipe and specials, gate valves and laying 36 in. c.i. pipe. R. D. Roney, secy.; adv. this issue.

Mich, Monroe—Nov. 22, by F. M. Kressbach, city clk., concrete reservoir; adv. this issue.

Minn., Winona—Nov. 28, 385 ft. 18 in. c.i. mains, 33,651 ft. 8-18 in. vitr. clay pipe and laterals, 107 brick manholes, etc. $40,000. E. E. Chadwick, city engr. Noted Oct. 13.

BIDS RECEIVED

New York—Bd. Water Supply, Municipal Bldg., Park Row, Centre and Chambers Sts., New York, opened bids Nov. 10, siphon pipes of Catskill Aqueduct, in towns of Olive and New Windsor, Contr. 209, from Rice & Ganey, Inc., 2786 Bainbridge Ave., New York, $999,000, Beaver Eng. & Contg. Co., 51 Chambers St., New York, $1,053,000; Spencer, White & Prentis, 47 West 42nd St., New York, $1,096,000; in towns of Phillipstown, Cortlandt, Yorktown and Mt. Pleasant, Contra. 210, from F. Snare, 8 West 40th St., New York, $2,978,000, Booth & Flinn, Ltd., Green and Tompkins Aves., Brooklyn, $3,302,000, McDonald, Porter & Rae, 17 West 42nd St., New York, $3,353,000; in towns of Mt. Pleasant, Greenburg and Yonkers, Contr. 211, from T. Crimmins Contg. Co., 126 East 59th St., New York, $2,275,000, F. Snare, 8 West 40th St., New York, $2,670,000, Smith, Hauser & MacIsaacs, 18 East 41st St., New York, $2,749,000. Noted Oct. 6.

N. Y., Perrysburg—G. C. Andrews, water comr., Municipal Bldg., Buffalo, opened bids Nov. 7, rein.-con. reservoir, here, from Crescent Concrete Co., Erie Co. Bank Bldg., Buffalo, $23,645; Empire Eng. Co., North Towanda, $29,734; J. W. Cowper Co., Fidelity Bldg., Buffalo, $29,750. Noted Oct 27.

O., Cleveland—Opened bids Nov. 4, concrete covered reservoir, from Stange-Welsh Constr. Co., Wash., D. C., $1,824,125; Thompson-Starrett Co., Perry-Payne Bldg., $1,932,059; Hunkin-Conkey Constr. Co., Century Bldg., $1,994,833. Noted Oct. 27.

O., Dayton—For 5,000,000 gal. suction reservoir at Keowee St. Pumping Sta., from G. M. Wiley Constr. Co., Tippecanoe City, $75,000; Frank-Hill Smith, Inc., Mutual Home Bldg., $76,234. Noted Oct. 27.

CONTRACTS AWARDED

Mass., Three Rivers—Town of Palmer, 6,500 lin.ft. c i. main extensions, to Crowley Bros., Fitchburg, $15,000.

O., Marietta—Furnishing 9,500 ft. 12 in. c.i. and 700 ft. 12 in. steel mains, to J. B. Clow & Sons Co., 544 South Franklin St., Chicago, $22,257. Labor for laying furnished by city. Noted May 19.

Ill., Hampshire — For 4-6 in. c.i. mains and pumping station, to A. J. Kelly, Marengo, $25,000. Noted Sept. 15.

Ill., Rockford—Pumps, piping and covering for pumping station, to C. A. Hopper Co., 642 State St., Madison, Wis., $12,000.

Ill., Winnetka—See "Sewers."

Mich., Detroit—Steel roof for filtration plant, 2,400 tons steel, to Russell Wheel & Fdry. Co., Chene St. and Belt Line Ry., $158,500. Noted Nov. 10.

Mich., Detroit—Water Bd. 1,987 ft. 6 in. c.i. mains in Schoenhuer Rd., Tuller, Monica, Dickerson, Rangoor, Gray and Springle Aves., 1,898 ft. 8 in. c.i. mains in Welland, Prairie, Harper and Maxwell Aves. Pipe will be purchased and laid by day labor. T. A. Leisen, Water Works Park, engr.

Mich., Ferndale—For 725 tons 6 in. and 125 tons 8 in. c.i. pipe, to J. B. Clow & Sons, 534 South Franklin St., Chicago, Ill., $41.80 per ton, and Amer. Cast Iron Pipe Co., Acipco St., Birmingham, Ala., $41.80. Noted Nov. 10.

Mich., Ferndale—Laying 600 ton 6 in and 100 ton 8 in. c.i. mains, by day labor. $25,000. G. Jerome, 1331 Majestic Bldg., Detroit, engr. Noted Oct. 6.

Minn., Cloquet—For mains, pumps and motor, power house, power line, etc., to Pasteret Constr. Co., 303 Sellwood Bldg., Duluth, $21,886. Noted Nov. 3.

Minn., Duluth — Great Northern Power Co., 211 Alworth Bldg., reservoir containing 111,000 sq.mi. ft. water, also 2 dams at White Face River, to serve as auxiliary to company's main dam on St. Louis River, 16 mi. northeast of here. Work will be done by day labor under supervision of company's engineering force, 15th Ave. W. and Superior Sts. Cement to be purchased.

Minn., Forest Lake—Well and concrete pump house to F. G. Bauer, Forest Lake, $7,321; one triplex and one centrifugal pump with motors, piping and accessories, to Sanitor Constr. Co, 3050 4th Ave., S., Minneapolis, $6,800. Noted Oct. 27.

Minn., Minneapolis—Will lay 2 mi. mains, by day abor. $40,000. H. N. Knott, clk.

Minn., New Prague—Making plans for waterworks. $30,000. Toltz, King & Day, 1410 Pioneer Bldg., St. Paul, engrs.

Tex., Edinburg—Equipment and complete installation of double stroke pump, pump head and motor for driving same, 60,000 gal. elevated steel tank, 4,300 ft. Class B 6 in. c. i. pipe, electrical system incl. engine and generator, switch board, transformers and about 22,000 ft. distribution line, etc., to Gulf Mchy. & Ship Supply Co., Galveston, $38,995.

Okla., Pawhuska — Pumping stations. reservoir and mains, to E. D. Price Constr. Co., Scarritt Bldg., Kansas City, Mo., $132,684. Noted Oct. 13.

Sewers

PROPOSED WORK

Mass., Andover—Plans sewers. $250,000. Engineer not announced.

Mass., Palmer—Plans sanitary sewers in various streets. Between $30,000 and $35,000. Engineer not selected.

R. I., Warwick—Plans sewerage system. $500,000. Engr. not chosen.

Fla., Inverness—Voted $30,000 bonds for sewerage system.

O., Mapleheight (Worthington, P. O.)—Plans sewerage system. $60,000. C. A. Courtney, Leader-News Bldg., Cleveland, engr.

Ill., Quincy—Making plans 10-36 in. sanitary sewers. $40,000. L. L. Harper, city engr.

Ill., Urbana—Plans 8-12 in. glazed tile sewers in Coler and Busey Aves. $27,000. A. M. Danely, City Hall, engr.

Wis., Plymouth—Making plans for one plant sewerage system. $36,880. J. Donohue Co., North 8th St., Sheboygan, engrs.

Wis., Westby—Plans sewerage system, incl. sanitary and storm sewers. $45,000 to $50,000. O. P. Flugstad, clk. Engineer not selected.

Ia., Davenport—Making plans and opens bids about Dec. 15, Duck Creek Sewer, $200,000. R. K. Earle, city engr.

Minn., Graceville—Making plans for 2 mi. sewerage system and disposal plant, 8-21 in. pipe. $40,000. W. E. Buell & Co., 205 Davidson Bldg., Sioux City, Ia., engrs.

Minn., Henning—Making plans sewerage system. $40,000. O. L. Scorheim, village recdr. Druar & Milinowski, 500 Globe Bldg., St. Paul, engrs.

Mo., Osceola—Osage Resort Co. soon takes bids sewerage system for resort and Socosa Hotel. $50,000. G. Linn, mgr. Engineer not selected.

Ont., Bridgeburg—Plans sewers. $50,000.

BIDS DESIRED

N. J., Harrison—Dec. 13, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, southerly portion Sect. 28, Kearney-East Newark-Harrison Branch Intercepting Sewer, here, 3,110 lin.ft. earth excav. and refilling, in trench, for 36 in. concrete sewer, 650 lin.ft. earth excav. and refilling, in trench for 15 in. vitr. pipe sewer and 1,560 cu.yd. concrete masonry, etc. J. R. Van Duyne, ch. engr.

Fla., West Palm Beach—Nov. 22, clay sewer pipes. $80,000. K. Riddle, city mgr. Carr & McFadden, West Palm Beach, engrs. Noted Nov. 10.

Mich., Lansing—Nov. 21, at office J. A. Parsons, city clk., sewers; adv. this issue.

Ill., Benton—Nov. 28, for 20 mi. sanitary sewers, 110,156 ft. 6-30 in. vitr. pipe, 86,705 cu.yd. trenching, etc. $234,671. C. B. Mautz, Benton, engr. Noted March '10.

Ill., North Chicago—Nov. 22, 10-20 in. vitr. tile sewers. $30,000. O. M. Powell, City Hall, engr.

Utah, Salt Lake City—Dec. 1, by City Recorder, 32,104 ft. 8-15 in. vitr. tile sewers in 6th St. S. to 2nd St. N. and from 8th St., W. to Jordan River, seventy-seven 4-5 ft. manholes, 44 flush tanks. Alternate bids on 12 and 15 in. concrete pipe. $128,937. S. Q. Cannon, city engr. Noted Oct. 27.

Wash., Seattle—Receiving bids building 53rd Ave. S. W. trunk sewer, $133,973. A. H. Dimock, city engr.

Wash., Spokane—Nov. 29, for 1,330 ft. 30-60 in. sewers, 27,000 cu.yd. excav. $360,000. A. D. Butler, city engr. Noted Nov. 3.

Ore., Pendleton—Nov. 21, to vote on $125,000 bonds for septic tank. F. B. Hayes, city engr.

Que., Montreal—Nov. 21, by Dept. Pub. Wks., 280 yd. 2 x 3 brick sewer in Coronation St., 745 yd. 2 x 3 brick in Harvard Ave., 227 yd. 12 in. tile in Berri St., $37,523.

BIDS RECEIVED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Nov. 14, sewer in Waldron St., etc., from F. Gallo, 940 Crescent St., Astoria, (a) $68,126, (b) $65,879; F. Spinella, 6102 18th Ave., Brooklyn, (a) $70,007, (b) $75,430 (informal), did not bid on all items; Lawton & Shea, 63 Wall St., New York, (b) $60,203; Peace Bros., 20 Main St., Flushing, (b) $64,981. Noted Nov. 10.

Mich., Detroit—For (1) Livernois Ave. Sewer, Puritan Ave. Arm, (2) Lateral 3515, (3) Lateral 3556, (4) Lateral 3557, (5) Lateral 3558, (6) Lateral 3560, (7) 800 ft. sewer in Water Work Park, from W. Porath, 1410 West Grand Blvd., (1) $20,833, (5) $14,913, C. M. Davis Co., 400 Penobscot Bldg., (1) $19,880, (7) $26,500; W. Blanck & Co., 827 Ford Bldg., (1) $19,807; M. Neshanian, Detroit, (2) $10,563; Detroit Contg. Co., 827 Ford Bldg., (2) $11,900, (3) $33,400, (4) $9,900; R. D. Baker, 1631 Elmhurst Ave., (2) $11,950, (3) $29,950, (6) $10,940; C. R. Lennane & Co., 2631 Woodward Ave., (3) $31,706, (7) $30,294; Oakwood Constr. Co., 165 Fort Blvd., (4) $9,997, (6) $11,025; Western Constr. Co., 1208 Ford Bldg., (4) $9,612, (6) $11,223;

Sewers (Continued)

Detroit Drainage Constr. Co., 400 Penobscot Bldg., (5) $14,273; A. Rossi, 3447 St. Aubin Ave., (5) $14,700; Gass Thurston Co., 13851 Van Dyke Ave., (7) $29,490.

Cal., Pasadena—Sewers in Mountain St. and other streets in Pasadena Heights, 29,031 ft. 8-20 in. vitr. pipe, from Mlagenovich & Gillespie, 1039½ West 36th St., Los Angeles, $50,000; Brkich & Nickevitch, 652 North Bway., Los Angeles, $51,096; Kruly & Milosvich, Los Angeles, $52,000.

CONTRACTS AWARDED

Pa., Phila.—For brick sewers in Ognotz Ave., Roosevelt Blvd., B, Basil, D, 4th, Lena, Ormes, 2nd and 6th Sts., to D. Silvestri, 5830 East Mermaid Lane, $30,299; 50th St., to O'Neill Co., 127 East Mermaid Lane, $12,947; 6th St., to C. Riccardi, 1226 South Juniper St., $2,311; Earl St., to DeSandro-Scelsci, 3906 North 5th St., $978; Lancaster Ave., to C. H. Parker 1018 Pine St., Darby, $2,874; Roy St., to A. DeSandro, 3906 North 5th St., $2,060; Old Front St., to F. T. Buckins, 4050 Kensington Ave., $2,680; Church Lane, to M. Mittia, 263 North Simpson St., $13,177; Tioga St., to E. Leva, 3851 North 10th St., $3,253; Abigal St., to C. D. Land, 28th and Cambria Sts. $672; Haines Ave., to D. MacMahon, P. O. Bldg., Germantown, $8,961; Baltimore Ave., to A. A. Pastori, 5903 Woodland Ave., $5,764; Comly and Walker Sts., to Curtiss Bros., Bank Bldg., Tacony (Phila. P. O.) $7,571; Cedar Park Ave., Ella, Lippincott and Ludlow Sts., to J. J. McHugh, 1617 Race St., $13,284; Day, 50th and Mercer Sts., to F. Borrelli, 6413 Callowhill St., $2,993; Kensington and Lancaster Aves., to J. Lombardi, Lincoln Bldg., $26,606; Pollard and 16th Sts., to R. Lombardi, Lincoln Bldg., $8,807; Cottage and Wakeling Sts., to J. Moss, 1652 Wakeling St., $6,416.

Ky., Frankfort — Sewers and storm water ditch in Holmes St., to Howerton Tiersway Co., Asheville, N. C., $61,000. Federal

O., Akron—E. A. Zeisloft, dir. Pub. Serv. sewer in Case Ave. and Newton St. Dist., to Cuyahoga Constr. Co., $33,784; Switzer Creek Dist. and Bittman and Hall Sts., to T. E. McShaffrey Co., Forge St., $111,800 and $23,794 respectively. Noted Nov. 10.

O., Sidney—For sanitary sewers to L. I. Stark & Co., Cuyahoga Falls, $89,932.

O., Toledo—C. A. Benedict, dir. Pub. Serv., sewerage pumping station, to A. Bentley & Sons, Belmont Ave. and 13th St., general construction, $96,476, foundation, $274,789. Noted March 3.

Mich., Detroit—To Boston & Errington Co., 108 Buhl Blk., Lateral 3521, $20,287, Lateral 3522, $11,900, Lateral 3538, $12,496; C. R. Lennane, 809 Union Trust Bldg., Lateral 3545, $7,000, Livernois Sewer, Puritan Ave. Arm, $20,960; Jeynes & Affeld, 1208 Ford Bldg., Sect. 6 Bates St. Sewer, $107,772; R. H. Hidney, Penobscot Bldg., Sect. 8, Six Mile Rd. Sewer, $96,991; Langley & Barton, 1604 Pennsylvania Ave., Livernois Ave. Sewer, Bourke Ave. Arm, $20,983; W. Porath, 1410 West Grand Blvd., Stimson Ave. Relief Sewer, $29,697; J. A. Mercier, 216 Hammond Bldg., East Wyoming Sewer, Grand River Arm, $32,165. Noted Nov. 3.

Ill., Springfield—For branch sewers, 10-36 in. pipe, to J. T. Walbridge Constr. Co., 6 North Michigan Ave., Chicago, $175,610.

Ill., Winnetka—Indian Hill Impvt. Dist., 10-16 in. sewers, 4-6 in. water mains and reservoir, in West Indian Hill, here, to Zadke & Donovan, Waukegan, $25,105. Noted Sept. 15.

Ia., Ottumwa—For 6-20 in. vitr. tile sewers in Hancock St., to J. W. Scott, Ottumwa, $25,301. Noted Aug. 18.

Minn., Minneapolis — Will lay main sewers in 31st Ave., N. E., 42nd Ave. N., 21st Ave. N. and Linden Hills, by day labor. $200,000. C. Illstrup, city sewer engr.

Okla., McAlester—Sanitary sewers and disposal plant to J. W. Rooks, Comanche and A Sts., $31,752. Noted Oct. 6.

Que., St. Lambert—For 4,725 ft. storm and 5,125 ft. sanitary sewers in Walnut, St. George, Edward, William, St. James and Henry Sts., to Leger & Tardiff, 60 Adam Sts., Montreal, $32,948; furnishing 2,340 ft. 30 in. rein.-con. pipe to Independent Concrete Pipe Co., Woodstock, Ont., $9032.

Bridges

PROPOSED WORK

Maine—State Hy. Dept., Augusta, plans steel and concrete bridge over stream between towns of Naples and Casco. $50,000. P. S. Sargent, engr.

Mass., Haverhill—Pub. Wks. Dept. plans steel and concrete bridge over Merrimac River. $400,000 to $500,000. Engineer not selected.

Del., Wilmington—New Castle Co. takes bids about Nov. 23, concrete bridge over Mill Creek. $100,000. C. Grubb, County Bldg., engr.

W. Va., Richwood — See "Streets and Roads."

O., Coke Otto (Hamilton P. O.)—Comrs. Butler Co. (Hamilton) open bids about Jan. 1, concrete arch bridge six 94 ft. spans over Miami River, on 3rd Ave. $361,537. F. M. Hammerle, Hamilton, Co. Surv.

Wis., Beloit—Plans 100 ft. rein.-con. or steel bridge over Turtle Creek, East Grand Ave. G. E. Heebink, City Hall, engr.

Missouri—State Hy. Dept., Jefferson City, plans 5 I-beam bridges, concrete abutments, on road from Dexter westward and eastward, Federal Aid Project 179, Stoddard Co. $25,068. A. Graham, state highway engr.

Okla., Bartlesville — Washington Co. voted $25,000 bonds for bridge over Caney River. N. M. Scott, clk.

BIDS DESIRED

Vermont—See Streets and Roads.

Pa., Phila.—Dec. 13, removing old w.i. truss spans and piers, and building new bridge over Schuylkill River, South St.; adv. this issue. Noted Aug. 4.

Pa., Phila.—Dec. 19, by Delaware River Bridge Comn., Widener Bldg., 2 pneumatic caisson piers, 70 x 143 ft., sunk to rock, in Delaware River, $1,500,000.

Maryland—Nov. 22, by State Rds. Comn., Baltimore, 54 ft. span rein.-con. arch bridge over Little Gunpowder Falls, between Baltimore and Harford Counties, Contr. H-29. J. N. Mackall, chn.; adv. this issue.

Maryland—Nov. 29, by State Rds. Comn., Baltimore, 1893 ft. rein.-con. bridge over Severn River, Anne Arundel Co. Contr. AB-10. J. M. Mackall, chn.; adv. this issue.

West Virginia—Dec. 2, by State Rd. Comn., Charleston, bridges 662, 683, 684, 674, 571 and 626, Ohio, Jackson, Roane, Mercer, Mingo and Calhoun Counties; adv. this issue.

W. Va., Madison—Dec. 10, at office Clerk Boone Co., steel superstructure. S. C. Miller, pres. co. court; adv. this issue.

W. Va., Morgantown—Dec. 8, at office Clerk. Monongalia Co., superstructure of steel bridge over Cheat River at Ices Ferry; adv. this issue.

North Carolina—Nov. 29, by State Hy. Comn., Raleigh, bridges and culverts on State Project 639, Iredell Co., 714 cu.yd. concrete, 87,930 lb. reinforcing, etc. $26,500. C. M. Upham, state highway engr.

S. C., Newberry—Nov. 23, by Comrs. Newberry Co., 263 ft. rein.-con. bridge over Bush River. $26,000. W. A. Sanders, Newberry, engr.

Tex., Denton—Nov. 22, by E. I. Key, judge, Denton Co., bridge over Elm Creek, on Highway 24, 100 ft. steel central span and two 70 ft. steel span approaches on 2 concrete piers and 2 concrete abutments. $27,500 inclg. 10% for engineering and contingencies. T. E. Huffman, co. engr.

BIDS RECEIVED

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Nov. 10 steel viaduct with appurtenances in West 134th St., 12th Ave. to 200 ft. easterly, from P. T. Cox Contg. Co., 154 Nassau St., $60,787; Lupfer & Remick, 4210 Boston Rd., $64,867; N. A. Deiser, 296 Fenimore St., Brooklyn, $69,000. Noted Nov. 3.

Mich., Detroit—Wayne Co., building and installing operators house, enclosure walls, pre-cast concrete, etc., for bridge, 156 ft. span, double leaf bascule type, at West Jefferson Ave. crossing Rouge River, from Cooper Widenmann Constr. Co., 1430 Penobscot Bldg., $78,700; Walbridge Aldinger Co., 2356 Penobscot Bldg., $82,300; R. H. Hidey, Penobscot Bldg., $83,000; furnishing and installing electrical and mechanical equipment for operation of above bridge, from Fowler Electric Supply Co., 325 Huron St., Toledo, O., $34,809; Miller & York, Inc., 451 West Larned St., $44,000; Norwood-Noonan Co., 116 West Illinois Ave., Chicago, Ill., $44,988. Noted Sept. 22.

CONTRACTS AWARDED

Connecticut—State Hy. Dept., Hartford, 3 concrete highway bridges, over Farmington River, New Hartford, 34 ft., 38 ft. and 60 ft. spans, to A. D'Marco, 221 Berlin Ave., Southington, Conn., $25,000.

Mich., Detroit — Wayne Co., rein.-con. bridge with one 75 ft. and one 100 ft. arch spans 24 ft. over Huron River on Sumpter Rd., to J. S. Whitcomb, 525 Woodward Ave., $59,950. Noted Oct. 13.

Tex., La Grange—Fayette Co. rein.-con. bridges and culverts on State Highway 3 B, to L. Robertson, Schulenburg, $41,315.

Col., Las Animas—State Hy. Dept., Denver, 600 ft. 4 span steel bridge over Arkansas River, 20 ft., to Pueblo Bridge & Constr. Co., 410 East 8th St., Pueblo, $103,342. Noted Nov. 10.

California—State Hy. Comn., at div. office Los Angeles, 2 bridges across Huasna Creek and Alamo Creek to Security Bridge Co., 502 North 32nd St., Billings, Mont., $105,826; constructing pile and wire dikes and planting willow cuttings for protection of Stony Creek Bridge, Glenn Co., to Jenkins & Elton, Sacramento, $7,996; grading 4.3 mi. highway, between 4.3 mi. east of Clements and easterly boundary, San Joaquin Co., to Hard Bros., Ripon, $21,237.

Dams

PROPOSED WORK

Conn., Southington—Bd. Selectmen plans remodelling dam at Crystal Lake. $25,000. S. H. McKenzie, Southington, engr.

Minn., Fond du Lac—See "Industrial Works."

Mont., Great Falls — See "Industrial Works."

Okla., Hugo—Group of citizens having preliminary surveys made concrete dam, 300 ft. head, Mountain Fork River, to develop 70,000 hp., incl. tunnel work, pipe line and complete machinery. Jacobson Eng. Co., 533 Metropolitan Bank Bldg., Minneapolis, Minn., engrs.

BIDS DESIRED

Ariz., Phoenix—Dec. 17, by Salt River Valley Water Users Assn., for Cave Creek flood control dam and appurtenances, Maricopa Co. E. W. Michael, secy.; adv. this issue.

Railways

PROPOSED WORK

Minnesota—Red Lake Northern Constr. Co., Bemidji, plans 130 mi. logging road, northwest from Redby through Red Lake Indian reservation, through Grygla to Roseau and South Junction on Canadian border; 13 miles to be started during December, grading same will be done by day labor under supervision of J. J. Opsahl, pres. Other stretches to be arranged for later. $2,000,000.

Ontario—Grand Trunk Ry., McGill St., Montreal, Que., plans new line and sidings at Petrolea. $25,000. C. Forrester, London, supt.

Ontario — London & Port Stanley Ry., Philip St., London, plans improving electric railway, additional sidings at Port Stanley, additional power units and enlarging terminals. $100,000. J. E. Richards, c/o owners, engr.

BIDS RECEIVED

New York—Transit Comn., 49 Lafayette St., opened bids Nov. 9, 2 track subsurface railroad extending under East and West 42nd St., Bryant Park and West 41st St. from about westerly line of Vanderbilt Ave. to about westerly line of 8th Ave., known as Route 67, from Powers-Kennedy Contag. Co., 149 Bway., $3,839,000; Keystone State Constr. Co., $3,895,000; F. L. Cranford, Inc., 149 Remsen St., Brooklyn, $4,171,000. Noted Oct. 20.

Excavation and Dredging

PROPOSED WORK

Fla., St. Petersburg — Making plans dredging Bayboro Basin, 100,000 cu.yd. sand and rock excav. $50,000. R. E. Ludwig, St. Petersburg, engr.

BIDS DESIRED

Ky., Clinton — Nov. 25, by Drainage Comrs. Hickman Co., Bayou de Chien D. D., incl., 18½ mi. main canal, 3½ mi. laterals, 1,306,000 cu.yd. excav., also 8 wooden bridges, in Hickman, Graves and Fulton Counties. J. A. Porter, secy.

S. D., Yankton—Dec. 5, Yankton Co., redigging Clay Creek Ditch, 35,000 cu.yd. excav.; redigging and enlarging Volin Lateral Ditch 1, 73,000 cu.yd., extending same, 30,000 cu.yd. $25,000. A. A. Loft, Yankton, engr.

CONTRACTS AWARDED

Fla., West Palm Beach—Palm Beach Inlet Bd., c/o C. H. Ellis, chn., dredging 12 x 200 ft. channel, and depositing silt and rock on jetties, to Anderson Dredging Co., West Palm Beach, $185,000. Company takes $100,000 worth of dredging machinery in payment. Machinery to be bought by Anderson Dredging Co. and paid for by board.

Ia., Garner—Hancock Co., D. D. 7, 59,430 ft. 6-26 in. tile, manholes and intakes, material to Iowa Pipe & Tile Co., 4th and Hayes Sts., Des Moines, $32,000; labor, O. Lundeen, Bancroft, $19,400. Noted Oct. 27.

Ia., Spirit Lake—Dickinson Co., D. D. 67, 25,700 ft. 6-26 in. tile, labor to Carpenter Contr. Co., Sibley, $5,102, 6-12 in, tile to Williams & Pettijohn, Montgomery, $1,371, 14-26 in. tile, to Humboldt Gravel Co., Humboldt, $7,397; D. D. 69, 43,300 ft., 6-34 in. tile, labor to I. J. Hayden, Spirit Lake, $7,689, tile to Cement Products Co., Spencer, $15,101.

Ia., Waukon—Bd. Supervs. Allamakee Co., new channel in Upper Iowa D. D. 1. 414,238 cu.-yd. excav., to Northern Constr. Co., Elkhart, Ill., $44,000. Noted Oct. 6.

Minn., Warren—Marshall and Pennington Counties, Judicial Ditch 30, 298,965 cu.yd. excav., to Union Drainage Co., Crookston, at $0.11 per cu.yd.; 10 bridges to Minneapolis Bridge Co., 1035 Metropolitan Life Bldg., Minneapolis, $26,000. Noted Nov. 3.

Streets and Roads

PROPOSED WORK

Maine—State Hy. Dept., Augusta, plans ¾ mi. asphalt pavement, Gardiner. Cost between $25,000 and $30,000. P. S. Sargent, state highway engr.

N. J., Weehawken—Bd. Freeholders Hudson Co. (Jersey City), rejected bids paving ¾ mi. Hackensack Plank Rd. between Hudson Blvd. and Gregory Ave. $178,000. Work will be readvertised. Noted Sept. 15.

Va., Norfolk — Plans widening and concrete paving 3,000 ft. Monticello Ave. from 12th to Church Sts. $144,000. J. C. Rue, city engr.

W. Va., Richwood—Nov. 29 to vote on $26,000 bonds grading and repairing Riverside Dr. and Greenbrier Rd. also $12,500 bonds bridge across Cherry River, near Yew Pine Inn. A. L. Craig, mayor.

S. C., Sumpter—Sumpter Co. plans paving highways. $500,000. Lee, Pennell & Murry, Sumpter, engrs.

Florida—State Hy. Dept., Tallahassee, takes bids in January hard surfacing 15.4 mi. Sect. Rd. 1, east of Lake City to Baldwin, Duval, Nassau and Baker Counties, $460,000; 8.9 mi. from Columbia Co. line east on Rd. 1, Baker Co., $260,000; 12.8 mi. from Sisco to Volusia Co. line, excepting Crescent City Project 18, Putnam Co., $380,000; 5.7 mi. Rd. 1, Project 21, through McClenny, Baker Co., $170,000. J. A. Mortland, state bridge engr.

Fla., Ft. Lauderdale—See "Waterworks."

Fla., Madison — Madison Co., Dec. 14, to vote on $330,000 bonds, surfacing 50 mi. roads from Madison to all towns in county via state roads, sand clay, marl or crushed rock with binder, 9-16 ft.; $420,000 bonds surfacing 60 mi. road from Jefferson to Suwannee Counties via Madison, and from here to Georgia line, Taylor Co., brick, bituminous concrete, etc., 16 ft.

Fla., Okeechobee—Plans hard surfacing portions North Park South Park, Osceola, Hicpochee, Miamee, Kissimmee, Hancock, Petit, 2nd, 7th, 9th, 8th and 6th Sts., Parrott, Okeechobee, 10th and 5th Aves, W. W. Dunnicliff, clk.

Fla., Tarpon Springs—Will take bids early in December, brick paving portions Spring Blvd., Grosse and Ring Aves., Lime, Court, Park and Bay Sts., total length 6 mi. $180,000. H. McCreary, Tarpon Springs, engr.

Tenn., Hohenwahl—Lewis Co. will sell $50,000 bonds Nov. 21, surfacing 12 mi. Federal Aid Highway 27. A. J. Hamlett, clk.

O., Cleveland—Plans paving East 37th St. from Perkins Ave. to Dayton Court, East 37th St. from Croton Ave. to Trumbull St., East 34th St. from Payne to Hough Aves., East 55th St. from St. Clair Ave. to Bway., East 55th St. from Harvard to Brow Aves. $150,000. R. Hoffman, City Hall, engr.

Mich., Detroit—Making plans, grading and paving with sheet asphalt on 8 in. concrete base, Richton Ave. from 12th St. to Linwood Ave., 26 ft., $51,130, Gibson St. from Brainerd to Tuscola Sts., 18 ft., $3,135, Yosemite Ave. from Joy Rd. to Ravenswood Ave., 26 ft., $15,870, Stoepel Ave. from Bonaparte to Southfield Aves., 26 ft., $9,570, Gratiot Ave. from Connors Creek Rd. Northerly, 20 ft., $18,370, Rosemary Ave. from Gratiot to Roseberry Aves., 22 ft., $35,710, Beechwood Ave. from Tireman to Martindale Aves., 26 ft., $78,870.

Mich., Detroit—Plans paving various alleys. 16-20 ft., 1 course concrete. $33,825. C. W. Hubbell, city engr.

Mich., Detroit—Plans paving 18 alleys, 11-25 ft., with one course rein.-con. $40,830. C. W. Hubbell, city engr.

Ill., Decatur—Making plans paving 7th St., vitr. brick and asphalt on concrete, $28,000. W. Collins, Decatur, engr.

Ill., East St. Louis—Making plans paving State St., asphalt on concrete; Columbia Pl., vitr. brick on concrete, $33,000 and $28,500 respectively, E. F. Harper, City Hall, engr. Noted Oct. 13.

Ill., Jacksonville—Making plans paving streets, vitr. brick on concrete. $31,000. E. M. Henderson, City Hall, engr.

Ill., Morris—Plans paving Fulton St., $28,000. T. Minker, clk. Engineer not selected.

Ill., Zion City—Making plans paving various streets, vitr. brick and asphalt on concrete. $75,000. J. Craig, Administration Bldg., engr.

Wis., Manitowoc—Making plans paving, curbing, guttering and building sidewalks on 2 mi. Michigan Ave., Franklin, 11th and 9th Sts., 20 ft. Cost between $55,000 and $75,000. F. L. Alter, City Hall, engr.

Ia., Clarinda — Plans paving about 45 blocks. $125,000. G. Heflin, clk.

Ia., Davenport—Bd. Supervs. Scott Co., opens bids week of Nov. 28 (change of date), paving 6.5 mi. Davenport-Harrison St.-New Liberty Rd., $200,000, grading and paving 3.5 mi. Davenport-Gambril Rd., $140,000. J. M. Malloy, co. engr. Noted Nov. 3.

Ia., Des Moines—Rejected bids paving Rollins Ave., vitr. brick on concrete. $30,000. K. C. Kastberg, city engr. Noted Oct. 6.

Ia., Hampton—Franklin Co. making plans grading 11.5 mi. Primary Rd. 10, 18 ft. $40,000. F. S. Currie, Hampton, engr.

Minn., Duluth—B. Farrell, comr. opens bids about Feb. 3, concrete paving on macadam, 8,138 ft. Woodland Ave. from Austin to Oxford Sts., $108,866; vitr. brick paving 5,150 ft. Superior St. from 8th Ave. west to 3rd Ave. E. $190,000. E. K. Coe, city engr.

Minn., Winona—Plans paving 10 blocks, loop east of Main St. to Franklin Ave. $50,000. H. E. Wolf, city engr.

Kan., Oberlin—Making plans surfacing various streets, vitr. brick on concrete. $30,000. E. T. Archer & Co., New England Bldg., Kansas City, Mo., engrs.

South Dakota—State Hy. Comn., Pierre, making plans grading and gravel surfacing 8.67 mi. Federal Aid Project 85, 24 ft., Clark Co., $43,106; grading 14.09 mi. Federal Aid Project 84, 24 ft., Spink Co., $27,129. F. D. Hudgins, state highway engr.

Missouri—State Hy. Dept., Jefferson City, plans 8,976 mi. road from Dexter eastward and westward, Federal Aid Project 179, Stoddard Co., 11,503 cu.yd. earth excav., 37,432 cu.yd. borrow, 44,280 sq.yd. specification B gravel pavement and 294.3 cu.yd. concrete masonry, etc., $76,980; 9.022 mi. road from Clarkson northward and southward. Federal Aid Project 183, Sect. A, Dunklin Co., 26,409 cu.yd. earth excav., 85,205 sq.yd. specification. A gravel pavement and 78.1 cu.yd. concrete masonry, etc., $133,451; 8.75 mi. road from St. Charles northward to West Alton, State Aid Project 20.88, St. Charles Co., 12,395 cu.yd. earth excav., 4,233 cu.yd. borrow and 53.2 cu.yd. concrete masonry, etc., $17,515; 2.93 mi. road from Trenton north and south, State Aid Project 20.96, Grundy Co., 18,367 cu.yd. earth excav., etc., $13,680; 3.31 mi. road from Boonville eastward and westward. State Aid Project 20.97, Cooper Co., 24,959 cu.yd. earth excav. and 79.7 cu.yd. concrete masonry, etc., $14,962; 4.55 mi. road from Center View northward. State Aid Project 20.103, Johnson Co., 3,864 cu.yd. earth excav. and 13,8 cu.yd. concrete masonry, etc., $19,790; 2.841 mi. road from Grant City southward, State Aid Project 20.117, Worth Co., 47,080 cu.yd. earth excav., 97,304 cu.yd. per 100 ft. overhaul and 44.2 cu.yd. concrete masonry, etc., $29,091. A. Graham, state highway engr.

Missouri—State Hy. Dept, Jefferson City, plans 6.4 mi. road from California northward, State Aid Project 20.94 Moniteau Co., 25,406 cu.yd. earth and 4,300 cu.yd. rock excav. and 15.6 cu.yd. concrete masonry, etc. $25,743. A. Graham, state highway engr.

Tex., Austin—Travis Co. making plans grading and gravel surfacing 3.98 mi. Austin-Manor Rd., 16 ft. $40,000. O. Leonard, co. engr.

Tex., Blanco—Blanco Co. making plans grading and surfacing 7.34 mi. State Highway 46 from Dist. 1 line to Comal Co. line, 27,528 cu.yd. borrow, 57;227 cu.yd. roadway and 441 cu.yd. rock excav., 321.4 cu.yd. concrete, 395 lin.ft. 24-36 in. corrugated metal pipe. $48,842. W. C. Yeager, co. engr.

Tex., Blanco—Blanco Co. making plans grading and surfacing 5.6 mi. Highway 20A, 8,004 cu.yd. borrow, 31,253 cu.yd. roadway, 4,085 cu.yd. loose and 1,703 cu.yd. solid rock excav., 256.26 cu.yd. class A concrete, 31,423 lb. reinforcing steel. $27,052. W. C. Yeager, co. engr.

Tex., Cameron—Milam Co., Nov. 19 to vote on $53,000 bonds grading and gravel surfacing Road Dist. 30, 16 ft. A. F. Mitchell, co. engr.

Tex., Edinburg—Hidalgo Co. Nov. 22 to vote on $1,250,000 bonds, permanent paving, gravel and caliche surfacing state highways and lateral county roads. P. S. Devine, Pharr, co. engr.

Tex., McKinney—Collin Co. soon takes bids grading and surfacing with local stone and gravel 15.03 mi. Rd. Dist. 29, $45,000; 8.9 mi. Rd. Dist. 29, 13,934 cu. yd. local stone, 10,582 cu. yd. gravel, $37,500. F. W. Cawthon, co. engr.

Tex., Olton—Lamb Co. making plans grading and sand clay surfacing 33.7 mi. State Highway 28, 16 ft. $75,000. C. L. Hasie Eng. Co., Littlefield, co. engrs.

Tex., Vernon—Wilbarger Co. voted $600,000 bonds improving Highway 5 and other highways leading out of here, incl. 6 or 8 mi. concrete roads, balance to be surfaced with gravel, 16 ft. J. B. Nabors, co. engr. Noted Oct. 6.

Okla., Bartlesville — Washington Co. voted $675,000 bonds for highways. N. M. Scott, clk. Noted Aug. 25.

Colorado—State Hy. Dept., Denver, plans grading 50 mi. Denver to Grand Junction Highway through Idaho Springs, Silver Plume, Dillon, Redcliff and Glenwood Springs. $500,000. L. D. Blauvelt, State Museum Bldg., Denver, engr.

Utah., Provo—Plans concrete paving Dist. 13, 6 in. thick, 53 ft. $50,262. M. Jones, Provo, engr.

Ore., Portland—Plans improving Foster Rd. from 50th to 82nd Sts. $65,000. O. Laurgaard, City Hall, engr.

Cal., San Diego—Plans grading, paving, curbing and laying sidewalks on Sutter, Welborn, Torrence and Neale Sts., 54,571

Streets and Roads (Continued)

sq.ft. bituminous concrete, 3,915 lin.ft. curbing, 16,121 sq.ft. sidewalk, 8,964 cu.yd. earth excav. $25,000. F. A. Rhodes, city engr.

Ont., London—Plans paving Wellington Rd., Dundas St. E., and various side streets, asphalt on concrete. $400,000. Will take bids about Jan. 21, for asphalt, concrete and broken stone. H. A. Brazier, city engr.

BIDS DESIRED

Vermont—Nov. 29, at office of T. W. Dix, comr. highways, Montpelier, 2.3 mi. bituminous macadam road incl. 86 ft. span steel bridge, Highgate; 4 mi. gravel road, Cambridge; 7 mi. gravel, crushed gravel or stone road, Marshfield and Cabot; 64 ft. span steel bridge, Sherburne; adv. this issue.

Massachusetts—Nov. 22 by State Hy. Dept., Boston, 21,100 ft. gravel highway, 18 ft., Plainfield and Cummington. $85,000. A. W. Deane, 413 Statehouse, Boston, engr. Noted Oct. 13.

N. Y., Long Island City—Nov. 22, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., repaving 8th Ave. from Graham to Jamaica Aves., 1st Ward, 1st Ave. from Bway. to Grand Ave., 1st Ward, sheet asphalt on concrete; curbing, laying sidewalks and paving Pierce Ave. from 2nd to 5th Aves., asphalt block on concrete; reconstructing outlet at Far Rockaway Disposal Plant, 5th Ward.

N. J., Woodbury—Dec. 1, by Bd. Freeholders Gloucester Co., improving first section of Mantua-Glassboro Rd., Mantua Twp., reinforced cement concrete 1 course pavement. W. C. Cattell, Wenonah, co. engr.; adv. this issue.

Pa., Phila.—Nov. 22, by F. H. Caven, dir. pub. wks., paving with asphalt, Montrose, 66th, 59th, Jefferson, Edgewood and 61st Sts., $58,000, paving with asphalt and repaving with granite block Kingessing Ave., $15,000, grading 67th Ave., Gratz and 49th Sts., $11,000, reconstructing 125 ft. steel bridge, concrete piers on 29th St. over Phila. & Reading R.R., $15,000, 1,532 sq.yd. vitr. brick, 11,837 sq.yd. asphalt, 2,397 cu. yd. concrete base, 1,000 sq.yd. granite block, 15,767 cu.yd. excav. F. C. Dunlap, City Hall, engr.

North Carolina—Nov. 29, by State Hy. Comn., Raleigh, grading and paving 10.6 mi. State Project 639, Iredell Co., 9 acres clearing, 61,500 cu.yd. excav., 11,800 cu.yd. rock excav., 1,942 ft. 12-24 in. concrete or corrugated metal pipe, 111,540 sq.yd. concrete or asphaltic paving, $370,000, 1.57 mi. State Project 655, Mecklenberg Co., 12,000 cu.yd. excav., 16,500 sq.yd. concrete or asphaltic paving, etc., $60,000, 10.85 mi. State Project 622, Catawba Co., borrow, 1,502 ft. 12-24 in. concrete or terra cotta pipe, 114,630 sq.yd. concrete or asphaltic paving, $363,000; grading, bridging and paving 8.84 mi. State Project 653, Mecklenburg Co., 41,300 cu.yd. excav., 1,138 ft. 12-24 in. concrete or corrugated metal pipe, 93,210 sq.yd. concrete or asphaltic paving, 476 cu.yd. concrete, 44,760 lb. reinforcing, etc., $315,000, 9.87 mi. State Project 456, Orange Co., 18 acres clearing, 40,800 cu.yd. excav., 1,500 cu.yd. rock excav., 1,666 ft. 12-30 in. concrete or c.i. pipe, 601 cu.yd. concrete, 70,970 lb. reinforcing, etc., 8.5 mi. State Project 632, Gaston Co., 38,600 cu.yd. excav., 3,900 cu.yd. rock excav., 1,952 ft. 15-30 in. concrete or metal pipe, 89,800 sq.yd. concrete or asphaltic paving, 5,080 lb. reinforcing, etc., $295,000. C. M. Upham, state highway engr. Noted July 14 and Sept. 1.

N. C., Gastonia—Dec. 6, by Comrs. Gaston Co., hard surfacing 5¼ mi. highway, 12 ft. D. L. Struthers, co. engr.; adv. this issue.

N. C., Wilmington—Nov. 29, 80,000 sq.yd. paving. Carolina Eng. Co., 412 Southern Bldg., engrs.

Ill., Chicago—Nov. 21, Comrs. Cook Co., at office H. A. Zender, supt. pub. serv., paving 14,128 ft. Sect. 77-15D Route 6-B, Elk Grove Twp., bituminous concrete with binder course, $98,509, without, $92,415, Portland cement concrete, $75,043; 7,894 ft., Sect. 72-15D, Route 20, Palos Twp., bituminous concrete with binder course, $55,783, without, $52,337, Portland cement concrete, $42,499; 31,694 ft. Sect. 74-15D, Route 24 and 26, Bremen Twp., bituminous concrete with binder course, $233,391, without, $218,954, Portland cement concrete, $177,794; 15,202 ft. Sect. 79-15D, Route 2B, New Trier and Northfield Twps., bituminous concrete with binder course, $106,283, without $99,708, Portland cement concrete, $80,965.

Ill., Elmhurst—Dec. 19, paving various streets, 60,000 sq.yd. bituminous macadam. $250,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Quincy—Nov. 22, Adams Co., paving 14.5 mi. Quincy-Paloma Rd., 20 ft., monolithic concrete. $500,000. L. L. Boyer, Court House, engr.

Ia., Chariton — Nov. 22, Auditor Lucas Co., grading 5 mi. Primary Rd. Project 63, northeast from here, 92,486 cu.yd. excav. $28,000. C. W. Eby, Chariton, engr.

Minnesota—Nov. 29, by State Hy. Dept., St. Paul, gravel surfacing 37,440 cu.yd. on State Project 28-26, Federal Aid Project 240, $100,000, 6,400 cu.yd. State Project 28-24, Federal Aid Project 200, $15,000, both in Big Stone Co.; 7,700 cu.yd. State Project 5-21, Federal Aid Project 220, Isanti Co., $12,750, 14,328 cu.yd. State Project 10-41, Federal Aid Project 208, Wright and Meeker Counties, $18,250, 18,080 cu.yd. State Projects 7-21 and 60-21, Federal Aid Project 216, Blue Earth Co., $35,000 and $17,500 respectively, 16,000 cu.yd. State Project 18-21, Federal Aid Project 217, Sherburne Co., $23,500, 6,400 cu.yd. State Project 18-22, Federal Aid Project 231, Crow Wing Co., $12,000, 19,529 cu.yd. State Project 10-23, Federal Aid Project 210, Meeker Co., $27,250, 14,000 cu.yd. State Project 54-21, Federal Aid Project 108, Grant Co., $18,000, 16,000 cu.yd. State Project 6-26, Federal Aid Project 161-A, Wilkin Co., $20,250, 10,600 cu.yd. State Project 6-27, Federal Aid Project 236, Wilkin Co., $32,500, 16,500 cu. yd. State Project 9-22, Federal Aid Project 228, Martin Co., $41,750, 13,000 cu.yd. State Project 35-32, Federal Aid Project 120, Aitkin Co., $24,000, 12,400 cu.yd. State Project 35-22, Federal Aid Project 238, Itasca Co., $22,500, 19,000 cu.yd. State Project 8-24, Federal Aid Project 237, Itasca Co., $50,750, 21,700 cu.yd. State Project 8-25, Federal Aid Project 57, Beltrami Co., $40,000, 19,000 cu.yd. State Project 8-25, Federal Aid Project 235, Hubbard Co., $40,000, 14,000 cu.yd. State Project 10-22, Federal Aid Project 211, Swift, Pope and Stevens Counties, $30,000, 10,000 cu.yd. State Project 21-22, Federal Aid Project 119-A, LeSueur Co., $17,500, 8,000 cu.yd. State Project 21,23, Federal Aid Project 241, LeSueur Co., $14,500. C. M. Babcock, state highway engr.

Minnesota—Nov. 30, by State Hy. Dept., St. Paul, concrete paving 267,000 sq.yd. on State Project 1-21, Federal Aid Project 212, Dakota Co., $800,000; gravel surfacing 24,000 sq.yd. State Project 6-21, Federal Aid Project 146, Lincoln Co., $40,000, 27,000 sq.yd. State Project 68-21, Federal Aid Project 214, Lyon Co., $55,000, 24,000 sq.yd. State Project 8-23, Federal Aid Project 155, Polk Co., $60,000, 22,000 sq.yd. State Project 30-22, Federal Aid Project 117, Mahnomen Co., $75,000, 12,000 sq.yd. State Project 3-24, Federal Aid Project 218, Wabasha Co., $30,000. C. M. Babcock, state highway engr.

Minnesota—Nov. 30, by State Hy. Comn., St. Paul, gravel surfacing 23,600 cu.yd. State Project 28-21, Federal Aid Project 209, and State Project 28-28, Federal Aid Project 205, between Salk Center and Swanville, Stearns and Todd Counties, $45,000; 12,800 cu.yd. State Project 9-23, Sect. B, Federal Aid Project 224, between Jackson and Worthington, Jackson Co., $25,000; 7,800 cu.yd. State Project 2-25, Federal Aid Project 242, from Pillager to east county line, Cass Co., $16,000. C. M. Babcock, state highway engr.

Kan., Atchinson—Dec. 13, by Bd. Comrs. Atchinson Co., grading and bridging Sects. A and B, Federal Aid Project 100, 28 ft. $60,000. R. Kerr, co. engr.

Kan., Kansas City—Dec. 20, by Comrs. Wyandotte Co., grading 1.56 mi. Parellel Rd., Federal Aid Project 98, 18 ft. $75,000. O. K. Williamson, 1001 Republic Bldg., engr.

Tex., Denton—Nov. 22, by E. I. Key, judge, Denton Co., paving 8.5 mi. Denton-Sherman Rd., 16 ft., State Highway 24. $40,000 incl. 10% for engineering and contingencies. Former bids rejected. T. E. Huffman, co. engr. Noted Oct. 27.

Tex., Houston—Receiving bids paving 21,000 sq.yd. Polk Ave. from east line main to west line Hutchins, 2 in. bitulithic, standard brick, 2 in. Uvalde rock or concrete on 6 in. concrete, incl. 7,000 lin.ft. standard combination curb and gutter, 15,000 cu.yd. earth excav., etc. $100,000. J. C. McVea, City Hall, engr.

Wash., Morton—Dec. 13, hardsurfacing all business streets. Bids to be called on cash and acceptance of local improvement bonds. C. P. Hicks, Centralia, engr.

California—Nov. 28, by State Hy. Comn., Sacramento, paving 8.4 mi. highway between Naples and Canadad Las Llagas, Santa Barbara Co., concrete shoulders, asphalt surface; 2.3 mi. highway, Fresno Co., asphaltic concrete. A. B. Fletcher, state highway engr.

BIDS RECEIVED

N. Y., Long Island—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Nov. 7, grading (1) Van Pelt St., repaving (2) Lawrence St., (3) Rockaway Blvd., etc., from Welsh Bros. Contg. Co., 32 Queens St., Astoria, (1) $4,475; U. S. Trucking Corp., 393 Canal St., New York, (1) $8,004; W. P. McDonald Constr. Co., 17 West 42nd St., New York, (2) $32,774; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (2) $38,137, (3) $5,960; Cleveland Trinidad Paving Co., Flushing, (2) $48,763, (3) $7,694; Sicilian Asphalt Paving Co., 41 Park Row, New York, (3) $8,820. Noted Nov. 3.

Pa., Phila.—Grading and paving (1) York Rd., grading (2) Chelwynde Ave., (3) 20th, 66th and 67th Sts., paving (4) Weymouth St., (5) Ashdale St., repaving (6) 2nd St., from Union Paving Co., 37th and Spruce Sts., (1) $37,606, (4) $3,392, (5) $3,649, (6) $7,635; Barber Asphalt Paving Co., Land Title Bldg., (1) $39,543, (4) $3,598, (5) $3,873; Connor & Leigh, Phila., (1) $37,975; J. G. Meade Contr. Co., Phila., (2) $3,956; J. J. McHugh, 1617 Race St., (2) $4,231; R. B. Wenner, 3106 Midvale Ave., (2) $4,068, (3) $6,264; F. Mark Constr. Co., Commercial Trust Bldg., (3) $5,098; T. Connor, 3329 North 5th St., (3) $6,174; Eastern Paving Co., Colonial Trust Bldg., (4) $3,568, (5) $3,960; Acchione & Canuso, 763 South 12th St., (6) $8,542; United Paving Co., Real Estate Trust Bldg., (6) $7,966.

North Carolina—State Hy. Comn., Raleigh, grading, asphaltic or concrete paving (1) 5.12 mi. State Project 427, Granville Co., (2) 2.3 mi. State Project 410, Durham Co., (3) 6.64 mi. State Project 482, Wake Co., (4a) grading and surfacing, (4b) rein.-con. bridges and culverts on 3.5 mi. State Project 455, Orange Co., (5a) clearing, grading, concrete or asphaltic paving, (5b) rein.-con. bridges and culverts on 7.4 mi. State Project 481, Wake Co., from R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, (1) $145,207; Ackerman Constr. Co., Greensboro, (1) $147,354, (2) $78,594, (3) $186,659; J. R. Ford, 1223 Floyd St., Lynchburg, Va., (1) $150,054; C. D. Rigsbee, Durham, (2) $78,732; Murray Constr. Co., Holston Natl. Bank Bldg., Knoxville, Tenn., (2) $80 963; R. M. Hudson Co., Salisbury, (3) $172,244, (5a) $224,051, (5b) $9,017; Union Paving Co., 30th and Locust Sts., Phila., Pa., (3) $177,198, (5a) $220,269; J. F. Mulligan Constr. Co., North Wilkesboro, (4a) $17,488; P. R. Ashby, Tucker Bldg., Raleigh, (4b) $24,708, (5b) $8,742; J. P. Dicus, Burgaw, (4a) $17,619, (4b) $25,463; W. M. Shuck, Liberty, (4a) $18 188; Gibson Constr. Co., Holston Bank Bldg., Knoxville, Tenn., (4b) $25,536; Elliott, Sholes & Co., Durham, (5a) $229,631, (5b) $9,561. Noted Oct. 27.

North Carolina—State Hy. Comn., Raleigh, (1a) grading and paving, concrete or some asphaltic material, (1b) rein.-con. bridges and culverts on 10 mi. State Project 616, Wayne Co., (2a) clearing, grading and concrete or asphaltic paving, (2b) rein.-con. bridges and culverts on 15 mi. State Project 536 B, Jones Co., from Union Paving Co., 30th and Locusts Sts., Phila., Pa., (1a) $268,358, (1b) $15,247, (2a) $292,635, (2b) $16,493; West Constr. Co., Kinston, (1a) $304,550, (1b) $17,521; Elliott, Sholes & Co., Durham, (1b) $17,290; W. P. McDonald Constr. Co., 618 Union St., Brooklyn, N. Y., (1a) $324,167; P. R. Ashby, Tucker Bldg., Raleigh, (2a) $293,601; Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., (2b) $20,572; R. M. Hudson Co., Salisbury, (2a) $304,022; Southern Dray Co., Asheville, (2b) $21,133. Noted Oct. 20.

O., Cleveland Heights (Warrensville P. O.)—Paving Elbow Rd., 2,800 cu.yd. asphalt and 3,700 cu.yd. earth excav., from Cleveland Trinidad Paving Co., The Arcade, Cleveland, $26,769, Spence Bros., Lorain Ave., Cleveland, $26,850; grading and laying sidewalks on Silsby Rd. from Taylor to Warrensville Center Rds., 18,000 cu.yd. earth excav. and 52,000 sq.ft. stone or concrete sidewalk from Strohman & Kidder, c/o F. A. Pease Engr. Co., Marshall Bldg., Cleveland, $24,296, Ohio Quarries Co., Citizens Bldg., Cleveland, $25,205.

Tex., Bay City—Matagorda Co. ditching and surfacing 7.23 mi. State Highway 12A, from J. B. Burress, 802 Oxford St., Houston, $52,590; Bellingsley & Ryman, Mata-

Streets and Roads (Continued)

gorda, $54,120; Haden & Austin, 727 Kress Bldg., Houston, $54,891. Noted Oct. 27.

Utah—State Hy. Comn., Salt Lake City, grading 12.56 mi. Marysvalle Rd., Federal Aid Project 19-A, 24 ft., and gravel surfacing 4 mi., 18 ft., from A. C. Young, Richfield, $64,001; Jensen & Wood, Salt Lake City, $64,837; Beane Bros., Richfield, $64,888.

Cal., Torrance—Grading, oiling, curbing and laying sidewalks on 7 streets, 14,142 lin.ft. concrete curbing, 27,973 sq.ft. cement sidewalk, 21,000 cu.yd. grading, 207,000 sq.ft. graveling and oiling, 86,400 sq.ft. 3 in. macadam, from J. D. Beckford, 718 San Fernando Bldg., Los Angeles, $54,431.

CONTRACTS AWARDED

North Carolina — State Hy. Comn., Raleigh, grading and paving 6.81 mi. State Project 599, Greene Co., topeka on 5 in. concrete, to West Constr. Co., Kinston, $196,440, rein.-con. bridges and culverts on above to Union Paving Co., 30th and Locust Sts.; Phila., Pa., $20,000; grading, paving, rein.-con. bridges and culverts on 9.93 mi. State Project 578, Craven Co., topeka on 5 in. concrete, topeka paving 12 mi. State Project 694, Pamlico Co., to Union Paving Co., 30th and Locust Sts., Phila., Pa., $262,600 and $263,000 respectively. Noted Oct. 20.

North Carolina — State Hy. Comn., Raleigh, clearing, grading and topsoiling 6.91 mi. State Project 558, Tyrrell Co., to C. W. Lacy, Wilmington, $43,682; grading and paving, penetration macadam 5.67 mi. State Project 601, Halifax Co., to O. F. Leighton, Inc., Richmond, Va., $103,230, rein.-con. bridges and culverts on above to A. C. House, Weldon, $10,167. Noted Nov. 3.

Fla., Daytona—For 52,000 sq.yd. sheet asphalt on concrete, 28,000 sq.yd. sheet asphalt or asphaltic concrete on concrete, 43,000 sq.yd. bituminous seal coat and stone chip cover on 6 in. coquina macadam base, to Atlantic Bitulithic Co., Va. Ry. and Power Bldg., Richmond, Va., $417,000.

Alabama—State Hy. Dept., Montgomery, grading and gravel surfacing 5.36 mi. Selma-Mobile Rd., Dixons Mill to Kimbrough, Wilcox Co., to Finnell Co., Tuscaloosa, 29,048 cu.yd. excav., at $0.35 per cu.yd., 2,580 cu.yd. gravel 1 mi. haul, $2.25, 11,000 cu.yd. gravel ½ mi. additional haul, $0.15, 14,804 lb. reinforcing, $.05, total $52,093. Noted Nov. 3.

O., Cincinnati—Rapid Transit Comrs. excavating, concrete paving, laying sewers and cement sidewalks, on Sect. 5, Rapid Transit Subway, to Hickey Bros., Plum and Ann Sts., $153,965. Noted Oct. 6.

O., Cleveland—Paving East 88th St., asphalt, to Cleveland Trinidad Paving Co., The Arcade, $12,455; Riverside Ave., brick, and East 64th St., to Rieley Bros., The Arcade, $10,078 and $8,374 respectively. Noted Oct. 27.

O., Corning—Paving West Main, Adams and Washington Sts., brick, to Adams Bros. Contg. Co., Muskingum Ave., Zanesville, $34,292.

O., Dayton—Paving Holly Ave., brick on concrete, to Finke Eng. Co., 15 South St. Clair St., $26,696. Noted Sept. 2.

Mich., Detroit—Grading and shaping 2 mi. Elizabeth Park Drive, to J. M. Hughes, 203 Shelby Blk., $25,000. Noted Oct. 20.

Ill., Joliet—Will Co. paving roads, bituminous macadam on concrete, to W. Shenk, Wilmington, $40,000.

Ia., Adel—Dallas Co. grading and gravel surfacing 6.95 mi. Primary Rd. 194, 18 ft., to W. V. Flynn, Grimes, $30,671.

Ia., Sheldon — Grading and paving 7 blocks, concrete, to Dearborn Constr. Co., Waterloo Savings Bank Bldg., Waterloo, $3.17 per sq.yd. Noted Oct. 27.

Ia., Storm Lake—Buena Vista Co., grading and gravel surfacing 4.75 mi. roads, to Crissey Bros., Storm Lake, $25,043.

Minnesota—State Hy. Comn., St. Paul, gravel surfacing 9 mi. Trunk Highway 6, between Crookston and Beltrami, Polk Co., $28,000; 24 mi. Trunk Highway 11, from International Falls through Ray, Koochiching Co. $15,000; 10 mi. Trunk Highway 35, between Hill City and Esquagamah Lake, Aitkin and Itasca Counties, $10,200, by day labor. C. M. Babcock, state highway engr.

Kan., Leavenworth—Leavenworth Co. grading ½ mi. various streets in Tonganoxie to F. M. Clark, Savannah, Mo., $22,715; 2 mi. Fort to Fort Highway, Project 94, Sect. A to J. Staton, Leavenworth, $100,151; bridge Project 94 Sect. B, to Rohr & Tearney, Leavenworth, $10,958. Noted Sept. 8.

South Dakota—State Hy. Comn., Pierre, gravel surfacing 12,942 mi. roads, 24 ft., Bon Homme Co., to Bd. Comrs., Bon Homme Co., Tyndall, $27,943; 17.75 mi. Federal Aid Project 58, 24 ft., Codington Co., to H. L. Bone & Son, Royal, Ia., $42,234; 13.79 mi. roads, Kingsbury Co., 9.1 mi. Brule Co., 14.76 mi. Hamlin Co., and 11,385 mi. Brookings Co., all 24 ft., to Miller Constr. Co., Sioux City, Ia., $31,434, $27,823, $27,150 and $27,203 respectively.

Missouri—J. D. Mohler, special highway engr., St. Joseph, 7.44 mi. Sexton-Easton Rd., Buckanan Co., to W. M. Spencer, Independence, $33,377. Noted Oct. 27.

Missouri—State Hy. Dept., Jefferson City, grading 17½ mi. Blue Star Dist., 24 ft. Barton Co., to Allhands & Davis, Main St., Joplin, $29,680. Noted Oct. 27.

From B. H. Faber, County Engineer, Colorado County, Tex., our Construction News correspondent

Use Your Head

A Woodpecker pecks
Out a great many specks
Of sawdust
When building a hut;

He works like a nigger
To make the hole bigger;
He's sore if
His cutter won't cut.

He don't bother with plans
Of cheap artisans,
But there's one thing
Can rightly be said:

The whole excavation
Has this explanation:
He makes it
By
Using
His
Head

Watch these pages

Missouri—State Hy. Dept., Jefferson City, grading and paving Federal Aid Project 20.1, St. Genevieve Co., to S. P. Reynolds, Caruthersville, $25,042. Noted Oct. 27, under "St. Genevieve, Mo."

Missouri—State Hy. Dept., Jefferson City, grading 2.68 mi. Federal Aid. Project 181, 24 ft., Osage Co., to Newton Constr. Co., Jefferson City, $25,290, 180 ft. bridge on above project to Genl. Constr. Co., St. Louis, $16,400; 2.88 mi. Federal Aid Project 228, 24 ft., Osage Co., to F. A. Stoner, Chamois, $6,033.

Tex., La Grange—Fayette Co. grading and gravel surfacing 7.29 mi. State Highway 3B, to M. M. Craven, Fredericksburg, $39,472 incl. 10% for engineering and contingencies; gravel surfacing 11.27 mi. Highway 3, Federal Aid Project 37 to Fayette Co., c/o J. P. Ehlinger, co. judge, $81,641. Noted Oct. 20.

Oklahoma—State Hy. Dept., Oklahoma City, grading, paving and bridging Federal Aid Project 33, Choctaw Co., 6.13 mi. Sect. E1 and 2, to Cobb & Jenkins, Dallas, Texas, $51,361; 10.92 mi. Sect. D and 7.75 mi. Sect. B1 and 2, to J. W. Rooks, Commache and A Sts., McAlester, $89,763 and $63,465 respectively; 7.74 mi. Sect. B3 and 4 to A. A. Davis & Co., Oklahoma City, $63,990; 4.32 mi. Sect. A-2 to H. B. Garrett, 1120 West 14th St., Oklahoma City, $57,585; 3 concrete bridges to Allen & Harrison, Oklahoma City, $12,425; 80 ft. span to St. Louis Structural Steel Co., Syndicate Trust Bldg., St. Louis, Mo., $4,422.

New Mexico—State Hy. Comn., Sante Fe, 14,242 mi. Roswell-Kenna Rd., Federal Aid Project 57, Chaves Co., to W. T. McClure, Magdalena, $44,350 plus 10 per cent for engineering and contingencies; 13.024 mi. Clovis-Grady Rd., Federal Aid Project 63, Curry Co., J. V. Stryker Constr. Co., East Las Vegas, $87,446 plus 10 per cent for engineering and contingencies. Noted Oct 20.

Utah—State Hy. Com., Salt Lake City, gravel surfacing 6.7 mi. Duchesne-Vernal Rd., Federal Aid Project 10-A, Uinta Co., to Wasatch Grading Co., Provo, $41,509.

Wash., Seattle—Paving 15th Ave., N. W., 74,000 sq-yd. 6-7 in. concrete, 20,600 cu. yd. rock excav., to J. L. Smith, Pioneer Bldg., $188,934. Noted Nov. 10.

California—See "Bridges."

California—State Hy. Comn., at div. office, San Francisco, concrete paving 7.4 mi. highway between Las Flores Canon and Santa Monica, Los Angeles Co., to Lee Moor Constr. Co., 302 Two Republics Bldg., El Paso, Tex., 210,000 cu.yd. excav., at $0.50, 14,810 cu.yd. concrete pavement, $6, 480 cu.yd. concrete, culverts and monuments, $15, etc., total $206,739. Noted Oct. 20.

Cal., Bakerfield—Bd. Supervs. Kern Co. paving 5.7 mi. Reward Rd., Impot. Dist. 15, 31,900 cu.yd. earth excav., 518,850 sq.ft. 8 in. concrete, 56,836 sq.ft. 8 in, rein.-con., 60,020 lb. reinforcing, to Rogers Bros. Co., 350 Merrick St., Los Angeles, $288,000. Noted Oct. 27.

Cal., Los Angeles—Grading, oiling, curbing, guttering and laying sidewalks on Coringa Dr., 77,544 sq.ft. grading and oiling, 5,819 lin.ft. concrete curbing, 12,706 sq.ft. concrete guttering, 29,445 sq.ft. sidewalk, to W. D. McCray, 424 Amer. Bank Bldg., $36,796.

Industrial Works

PROPOSED WORK

Mass., Cambridge — Cambridge Electric Light Co., Blackstone St., having plans prepared by French and Hubbard, archts. and engrs., 210 South St., Boston, 1 story, 90 x 180 ft., rein.-con., brick and steel power house.

Mass., Williamsett — Hampden Motor Truck Co., c/o R. D. Bloom, pres., Holyoke, soon lets contract 1 story, 60 x 630 ft., brick, concrete and steel factory, plain foundation, along tracks Boston and Maine R.R., here. Private plans.

Mass., Worcester—T. O'Flynn & Sons, 8 Green St., having plans prepared by E. T. Chapin, archt., 340 Main St., 2 story, 40 x 90 ft., brick and steel garage, Green St., $40,000.

R. I., Pawtucket—J. and P. Coats, Inc., 366 Pine St., plans large mill addition, brick and rein.-con. Architect not announced.

Conn., Bridgeport—Crane Co., South Ave., soon lets contract, 1 story, 75 x 175 ft., brick and steel addition to plant, plain foundation. Private plans.

Conn., Stamford—Vogue Publishing Co., 19 West 44th St., New York, having plans prepared by W. Higginson, archt. and engr., 18 East 41st St., New York, 3 story, 75 x 100 ft., concrete, brick and steel plant, here. $85,000.

N. Y., New York—Brooklyn Edison Co., 360 Pearl St., having sketches made brick, steel and concrete boiler house, plain foundation, foot of 66th St. $1,200,000. Private plans.

Pa., Bristol—Burlington Island Amusement Co., having plans prepared by Miller & Baker, engrs., Pleasant Beach Park, Bridgeport, Conn., for turbine lighting plant, with 2 units for emergency cases.

Industrial Works (Continued)

Pa., Johnstown—Cupp Grocery Co. takes bids in spring, 2 story, 66 x 115 ft. warehouse, Baumer and Cherry Sts. $150,000. McCormick Co., Century Bldg., Pittsburgh, engrs.

Pa., Phila.—L. J. Priestly, Jr., 1312 Sansom St., having preliminary plans prepared by H. Reinhold, archt., 1513 Walnut St., 3 story printing plant, 5th and Butler Sts. $75,000.

Pa., Phila.—Producers Cold Storage Co., c/o W. C. Benkert, Morris Bldg., having preliminary plans prepared by A. J. Sauer & Co., engrs., Denkla Bldg., 10 story, 90 x 275 ft. cold storage plant, rein.-con. brick and steel, plain foundation, South and Bainbridge Sts. $2,000,000.

Pa., Phila — Union Transfer Co., 1004 Spring Garden St., takes bids early in 1922, 1 story, 150 x 165 ft. garage. $40,000. C. T. Mitchell, 129 South 5th St., archt.

Pa., Pittsburgh—H. J. Heinz Co. having plans prepared by R. M. Trimble, archt., Ferguson Bldg., 6 story, 92 x 150 ft., storage plant, brick and steel, Progress St.

Pa., Pottstown—Nov. 20, by Lackman & Murphy, archts., Drexel Bldg., Phila., 4 story 100 x 260 ft. rein.-con. and steel factory, plain foundation, for Burdan Bros. $125,000.

W. Va., Huntington—H. T. Lambert Co., 1st Natl. Bank Bldg., plans 1st unit of plant, $45,000. A. E. Thomas, treas.

W. Va., Maben—Raleigh Wyoming Coal Co. having plans prepared 1 story, 70 x 80 ft. power plant. Rust Eng. Co., 1901 5th Ave., Pittsburgh, Pa., engrs.

Fla., Miami—See "Miscellaneous."

Ky., Ashland—Imperial Ice Cream Co., Parkersburg, W. Va., 1 story, 46 x 166 ft., ice cream plant, here, to H. W. Cox, Ashland, $90,000.

O., Cleveland—J. C. Lincoln, pres. Lincoln Electric Co., East 38th St. and Kelly Ave., plans 1 story, 60 x 110 ft., brick and steel garage, plain foundation, 1627 Superior Ave. $50,000. Architect not selected.

O., Cleveland—W. Rosenzweig, Society for Savings Bldg., plans 1 story, brick and steel garage, plain foundation, rear 6535 Carnegie Ave. $50,000. Private plans.

Mich., Detroit—Curtis Co., 536 West Lafayette Ave., having plans prepared by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, 3 story, printing plant, rein.-con., brick and steel, plain foundation, West Grand Blvd. and Lincoln Ave. $150,000.

Mich., Grand Rapids—Kent Storage Co., Front St., N. W., plans cold storage plant and complete power plant. G. H. Hess, ch. engr.

Ill., Canton—Canton Ledger having plans prepared by Reeves & Ballie, archts., Arcade Bldg., Peoria, 2 story printing plant, brick, stone and steel. $50,000. H. Owen, mgr.

Ill., Chicago—Austin Mchy. Co. having plans prepared by Fox & Fox, archts., 38 South Dearborn St., 4 story, 80 x 160 ft., factory, mill construction, 865-79 North Sangamon St. $80,000.

Ill., Chicago—Rienzi Garage Co., 554 Diversey Ave., having plans prepared by W. W. Ahlschlager archt., 65 East Huron St., 1 story, 117 x 230 ft., garage, rein.-con., terra cotta and brick, Lehman Court and Dole Ave. $100,000.

Ill., La Salle—Stock company, c/o F. Worn, plans cement plant, brick and steel. $40,000. Architect not selected.

Ill., Zeigler—Zeigler Ice and Bottling Co., 1 story, 92 x 92 ft., ice plant, brick and steel. $50,000. Architect not selected.

Wis., Beaver Dam—R. Christian plans 1 and 2 story, 60 x 120 ft. garage, brick, rein.-con. and steel. $55,000. Architect not selected.

Wis., Beaver Dam—Storck Products Co., Slinger, plans 2 story, 60 x 80 ft. ice icream plant, brick, rein.-con. and steel, here. $50,000. Architect not selected.

Wis., Cl'nton—Milwaukee Washing Machine Co., 155 West Water St., Milwaukee, plans 1 story, 40 x 180 ft. factory, brick and wood, plain foundation, here. $50,000.

Wis., Milwaukee—Alliance Investment So., 115 Wisconsin St., having plans prepared by M. Tullgren & Sons, archts., 425 East Water St., 1 story, 60 x 120 ft. garage, brick and concrete, plain foundation, 3way. $40,000.

Wis., Milwaukee—H. C. Haeuser, archt., 445 Milwaukee St., opens bids about Nov.

FILTER PLANT—HARRISBURG, PA.

Bids were received Oct. 13 (lowest 3) by City Council for enlarging filter plant, Contr. A, from (A) Whiting-Turner Constr. Co., Stewart Bldg., Baltimore (awarded contract); (B) S. W. Shoemaker & Son, Walnut St.; (C) T. L. Eyre, 1537 Commercial Trust Bldg., Philadelphia; new force main, Contr. C, from (A) Meadow & McCarthy, 2423 State St.; (B) Natl. Constr. Co., 2218 Chestnut St., Philadelphia; (C) T. L. Eyre. The unit bids were as follows:

Contract A

29,000 cu.yd. earth excavation	$1.42	$1.75	$2.10
911 cu.yd. rock excavation	12.00	5.50	5.00
18,550 cu.yd. earth embankment, "A"	22	.75	.50
4,390 cu.yd. earth embankment, "B"	21	.50	.40
900 cu.yd. rock fill	2.25	5.00	2.40
1,275 cu.yd. top soil	1.83	2.00	3.00
500 sq.yd. sodding	50	1.00	80
1.5 acres seeding	75.00	100.00	250.00
1,500 sq.yd. macadam roads	2.02	2.00	3.50
500 sq.yd. gravel paths	84	2.00	1.00
950 lin.ft. iron fences, outdoors	1.35	1.25	3.00
112 tons reinforcing steel	86.00	125.00	110.00
1,720 cu.yd. concrete, Class A	22.96	34.00	24.00
1,940 cu.yd. concrete, Class B	15.75	12.00	20.00
600 cu.yd. concrete, Class C	16.60	15.00	16.00
317 cu.yd. concrete, Class D	17.00	17.00	25.00
280 cu.yd. concrete, class E	26.00	28.00	25.00
135 cu.yd. concrete, Class F	21.00	40.00	34.00
540 cu.ft. concrete, Class G	1.00	1.00	2.00
40 cu.yd. concrete, Class H	39.00	50.00	70.00
1,000 lin.ft. drilling holes	1.45	1.00	2.50
390 cu.yd. sand fill	2.74	5.00	5.00
88 lin.ft. 48-in. concrete pipe	28.50	27.00	30.00
230 lin.ft. 42-in. concrete pipe	22.00	22.00	24.00
650 lin.ft. 36-in. concrete pipe	13.70	19.00	20.00
940 lin.ft. 18-in. concrete pipe	6.00	8.00	10.00
138 lin.ft. 48x½-in. steel pipe	30.80	20.00	30.00
40 lin.ft. 36x$\frac{3}{16}$-in. steel pipe	24.75	20.00	32.00
68 lin.ft. 42x½-in. steel pipe	30.00	20.00	37.00
212 lin.ft. 42x½-in. steel pipe	18.00	30.00	21.00
40 lin.ft. 8-in. cast iron pipe	5.50	7.20	5.00
1,680 lin.ft. 6-in. cast iron pipe	4.00	1.50	3.30
235 lin.ft. 4-in. cast iron pipe	3.75	1.00	3.00
C.-i. pipe at gate house (lump sum)	10,350.00	4,524.50	14,000.00
Con'ns bet. new and old plant (lump sum)	7,600.00	7,275.00	10,000.00
Alternative for above plant (lump sum)	9,600.00	9,000.00	11,000.00
8 sets filter piping, etc	2,809.00	2,500.00	3,000.00
8 sets filter regulating app	1,300.00	1,000.00	1,375.00
12 sets alterations to pres. filters	260.00	200.00	276.00
700 lin.ft. underground steam pipe	3.15	2.00	3.00
85 lin.ft. exterior w.-i. pipe	2.00	1.00	2.00
25 lin.ft. 10-in. vitrified pipe	4.00	2.00	4.00
800 lin.ft. 4-in. vitrified pipe	.60	1.00	.60
2 48-in. gates, hyd. cyl	2,650.00	2,400.00	2,820.00
3 42-in. gates, hyd. cyl	1,750.00	1,500.00	1,870.00
2 42-in. gates, bevel gears	900.00	800.00	945.00
2 36-in. gates, hyd. cyl	1,200.00	1,100.00	1,255.00
1 36-in. gates, bevel gears	464.00	550.00	490.00
1 30-in. gates, bevel gears	312.00	350.00	330.00
3 18-in. gates	175.00	160.00	180.00
3 6-in. gates	60.00	30.00	60.00
2 4-in. gates	40.00	12.00	42.00
6 3-in. gates	32.00	15.00	32.00
1 42-in. sluice gates	589.00	550.00	620.00
2 36-in. sluice gates	450.00	400.00	480.00
1 16-in. sluice gates	196.00	150.00	205.00
4 30-in. flap valves	250.00	200.00	262.00
20 8-in. flap valves	27.00	25.00	28.00
1 4-in. fire hydrants	70.00	60.00	74.00
Superstructure of filter house (lump sum)	8,450.00	9,655.00	12,000.00
Alternative for above (lump sum)	9,500.00	10,155.00	13,000.00
Alternative for above (lump sum)	13,200.00	17,000.00	11,000.00
Alternative for head house (lump sum)	6,700.00	7,215.00	9,000.00
Alternative for gate house (lump sum)	4,651.00	4,800.00	7,000.00
Electric wiring (lump sum)	4,100.00	4,000.00	4,600.00
Gas piping (lump sum)	357.00	200.00	500.00
Plumbing and heating (lump sum)	5,700.00	4,600.00	5,400.00
Intake bars, etc. (lump sum)	360.00	360.00	375.00
4 dry feed machines	1,175.00	1,200.00	550.00
1 head house crane	360.00	500.00	380.00
1 Venturi meter	2,540.00	2,593.00	2,850.00
Water level gage (lump sum)	190.00	150.00	195.00
Water testing table (lump sum)	500.00	475.00	520.00
1 sand ejector	280.00	270.00	300.00
400 lin.ft. 2½-in. fire hose	1.30	1.43	1.60
100 lin.ft. 3-in. fire hose	2.00	2.20	2.40
New low lift pump (lump sum)	9,240.00	8,000.00	9,870.00
Renovating old pumps (lump sum)	4,800.00	4,000.00	5,060.00
New high press. pump (lump sum)	2,026.00	2,000.00	2,165.00
New boiler, blower, etc. (lump sum)	5,250.00	5,820.00	6,200.00
Alterations to piping (lump sum)	4,500.00	3,500.00	4,345.00
Alterations to buildings	2,700.00	3,100.00	3,000.00
70 cu.yd. graded filter gravel	12.00	10.00	14.00
320 cu.yd. graded filter sand	6.50	5.00	7.00
320 cu.yd. alternative for above	12.50	8.00	13.00
480 cu.yd. cleaning present sand	3.00	2.50	3.50
Reg. app. in gate house (lump sum)	525.00	7.00	830.00
Reg. app. for intake gates (lump sum)	250.00	325.00	345.00
50 manhole heads, etc	26.00	24.00	30.00
Appurtenances (lump sum)	642.42	800.00	660.00
Chlorine apparatus (lump sum)	1,100.00	1,080.00	1,090.00
5 portable belt conveyors	900.00	6,000.00	990.00
Extended totals	$375,588	$421,584	$449,298

Contract C

	A	B	C
1,810 lin.ft. 36-in. c.-i. pipe, Class C	$21.00	$21.20	$23.00
Valves (lump sum)	1,950.00	2,500.00	930.00
Manholes (lump sum)	200.00	370.00	300.00
Extended totals	$40,160	$41,242	$42,860

Industrial Works (Continued)

21, 2 story, 32 x 64 ft. bakery, brick and tile, plain foundation, North Ave., for H. M. Schwantes, 1063 16th St. $40,000.

Wis., Neenah—Tri City Nash Co., 526 South Commercial St., plans 2 story, 55 x 150 ft. garage, brick, rein.-con. and steel, North Commercial St. $60,000. Architect not selected.

Wis., New Lisbon—General Device Corp. plans 1½ story, 50 x 120 ft. factory, brick, rein.-con. and steel, Main St. $85,000. Architect not selected.

Wis., Platteville—B. A. Doescher plans 2 story, 60 x 150 ft. factory, brick and rein.-con. $50,000. Architect not selected.

Wis., Portage — Portage Co-operative Canning Co., Michel Bldg., having plans prepared by R. A. Webber, archt., Portage, 2 story, 198 x 250 ft. cannery, brick, steel and rein.-con. $150,000. Noted Sept. 8.

Wis., Waukesha—Commercial Appliance Co., c/o L. M. Taylor, pres., Port Washington, plans 2 story, 50 x 150 ft., brick, rein.-con. and steel factory, Main St., here. $75,000. Architect not selected.

Ia., Oskaloosa—Anderson Canning Co. having plans prepared 2 story factory, brick and steel. $45,000. J. H. De Board, mgr. Private plans.

Minn., Fond du Lac—Great Northern Power Co., 311 Alworth Bldg., Duluth, preparing plans for power house and dam, here. $1,000,000. Mitchell, pres. Private plans.

Minn., Minneapolis — Minnesota Mfg. Corp., 732 3rd St., N., having plans prepared by P. E. Crosier, archt., 915 New York Life Bldg., 3 story, 46 x 132 ft., brick and concrete factory, 8th Ave. between 3rd and 4th Sts. N. $40,000. E. J. Miller, secy.

Minn., Minneapolis—M. Tullgren & Sons, archts., 425 East Water St., Milwaukee, opens bids about Nov. 21, 3 story, 96 x 168 ft., brick and concrete warehouse, plain foundation, Colfax Ave., S., here, for Creamery Package Mfg. Co., Ft. Atkinson. $100,000.

Kan., Columbus—C. & A. Motor Car Co., c/o F. Hart, mgr., plans 2 story, brick and steel garage. $50,000. Architect not selected.

Kan., Wichita — Legeli Engine Co., El Rens, Okla., c/o L. Legeli, plans 2 story, brick and steel factory, here. $50,000. Architect not selected.

Neb., Omaha — Chicago, Rock Island & Pacific Ry., c/o J. G. Gorman, pres., 139 West Van Buren St., Chicago, having plans prepared by A. T. Hawk, archt., c/o owner, 1 story, 46 x 250 ft., brick and steel freight house, here. $350,000.

Mont., Great Falls—Montana Power Co., Electric Bldg., Central Ave., plans hydro-electric plant and dam, Missouri River, below Mystic Falls. $1,000,000. J. C. Hobbins, mgr.

Mo., Lamar—Osage Power Site Co. having plans prepared, power plant, concrete, near Osage River. $3,000,000. W. E. Banks, mgr. R. Wilson, Lamar, engr.

Mo., Montgomery City—Montgomery City Electric Co. plans rebuilding light plant, brick. $50,000. E. H. Algermissen, mgr. Architect not selected.

Mo., Osceola — Osage Resort Co. plans power plant, concrete. $150,000. G. Linn, mgr. Engineer not selected.

Mo., St. Louis—Adalil Realty Co., c/o P. H. Bierman, 1609 Ry. Exch., having plans prepared by O. J. Popp, archt., Odd Fellows Bldg., 1 story, 50 x 234 ft., brick and steel garage, Spring and Washington Sts. $55,000.

Mo., St. Louis—P. J. Bradshaw, archt., International Life Bldg., soon lets contract 2 story, brick and steel factory, 1900 North B'way, for Hall & Brown Woodworking Machine Co., 1913 North B'way. $50,000.

Mo., St. Louis—Haynes Langenberg Mfg. Co., c/o G. Langenberg, 4045 Forest Park, plans to rebuild 2 story, brick and concrete factory. $125,000. Architect not selected.

Mo., St. Louis—Walsh Motor Car Co., c/o W. D. Walsh, pres., 4919 Delmar St., having plans prepared by Comet & Carey, archts., Chemical Bldg., 2 story, brick and steel garage. $75,000. Noted May 5.

Wash., Seattle—E. Goldberg, 615 Boren Ave., having plans prepared by H. H. James, archt., Amer. Bank Bldg., 2 story, 138 x 160 ft. factory, 1st Ave. S. and Spokane St. $60,000.

Ore., Scappoose—Oregon Charcoal Iron Co., 412-13 Corbett Bldg., Portland, having plans prepared for 50 ton charcoal blast furnace supplied by by-product plant, 1½ mi. west of here. C. I. Calkins, pres.

Cal., Irvington—Reid Bros., 105 Montgomery St., San Francisco, having plans prepared by Sutton & Whitney, archts., Lewis Bldg., Portland, Ore., 1 story concrete factory, here. $100,000.

Ont., Chatham—Silverwoods, Ltd., London, plans ice plant, Maple St., here. $100,000. A. E. Silverwood, Mgr.

Ont., Ottawa—Bd. Control takes bids early in 1922, live stock building, rein.-con. and brick, Bank St., for Central Canada Exhibition Assn., $150,000. A. K. Raisley, City Hall, secy. Architect not selected.

BIDS DESIRED

Mass., Everett—C. H. Tenney & Co., archts. and engrs., 201 Devonshire St., Boston, receiving bids 1 story, 70 x 70 ft., brick and concrete power house, Bway. and Oakland Ave., here, for Malden Electric Co., 129 Pleasant St., Malden. $70,000.

Conn., Hartford—Frisbie Pie Co., Kossuth and Burroughs Sts., Bridgeport, receiving bids 2 story, 100 x 100 ft. bakery, brick and steel, plain foundation, Prospect St., here. Private plans.

Pa., Phila.—Dec. 1, by J. E. Fieldstein, archt., Penfield Bldg., 3 story, 89 x 100 ft. rein.-con., brick and steel garage and service station, plain foundation, Broad and Bainbridge Aves., for Walton Auto Supplies Co., Inc., Broad and Bainbridge Aves. Former bids rejected. Noted Oct. 27.

N. C., Charlotte—Dec. 1, by Southern Power Co., c/o W. S. Lee, vice-pres. and ch. engr., 511-5th Ave., New York, addition to hydro-electric plant on Catawba River, at Great Falls, S. C., known as Great Falls Power House 2, 35,000 cu.yd. concrete masonry and 100,000 cu.yd. excav.; new installation at point 12 mi. from here will be known as Mountain Island Station, 220,000 cu.yd. concrete masory, 250,000 cu.yd. rock excav., and 400,000 cu.yd. earth fill. Noted Jan. 27.

O., Newark — Consumers Products Co. taking bids 1 story, 40 x 60 ft., ice plant, brick and steel, plain foundation. $40,000. A. C. Bishop & Co., 427 Guardian Bldg., Cleveland, archts.

Wis., Cumberland—Jan. 1, by Cumberland Creamery Co., 1 and 2 story, 50 x 100 ft. dairy, brick, rein.-con. and tile. $45,000. A. W. Twinghamer, pres. Private plans.

Mo., St. Louis—Nov. 22, by F. B. Edelmann, archt., 1111 Title Guaranty Bldg., 1 story, 92 x 126 ft., brick and steel factory, La Salle and Grand Sts., for O. E. Schaefer, 1122 McCausland St. $45,000.

Okla., Cordell—C. H. Murdock taking bids 2 story, 50 x 130 ft. brick and steel garage. $45,000. Layton, Smith & Forsyth, 701 Majestic Bldg., Oklahoma City, archts.

BIDS RECEIVED

O., Cleveland—Bd. Educ., East 6th St. and Rockwell Ave., opened bids Nov. 7, steam heating plant, brick and steel, plain foundation, for school, East 116th St. and Corlett Ave., from Spohn Heating & Ventilating Co., East 45th St., $154,312; Feldman Bros., 10309 Barrett Ave., $161,034; Warden & Lees Co., Prospect Ave., $163,985. Noted Oct. 27.

CONTRACTS AWARDED

N. H., Concord—Boston & Maine R.R., North Sta., Boston, 1 story, brick and rein.-con. boiler house, freight yards, here, to H. W. Lines Co., 134 State St., Meriden, Conn. $75,000.

Mass., Brockton—McRae, Ouderkirk & Hallamore Co., 159 North Montello St., 1 story, 100 x 100 ft., brick and steel garage, plain foundation, to J. S. Johnson, 148 Belmont St., $40,000.

Mass., Cambridge — C. N. James, 139 Brookline St., 1 story, 99 x 122 ft., brick addition to factory, Decatur St., to F. J. Van Etten Co., 80 Boylston St., Boston. $45,000.

Mass., Walpole—Bird & Son, Inc., 1 story, 65 x 210 ft. brick addition to factory, to Somers & Drisko, 67 Milk St., Boston, $60,000.

Conn., Hartford—St. Francis Hospital, Farmington Ave., 1 story, 80 x 90 ft., brick, concrete and steel laundry, plain foundation, Ashley St., to W. F. O'Neill, 277 Farmington Ave. $40,000.

N. Y., Mt. Vernon—Willow Brook Dairy Co., 5 South Fulton Ave., 2 and 1 story dairy plant and garage, etc., to Barney-Ahlers Co., 110 West 40th St., New York, $300,000. Noted June 23.

Pa., Clarion—L. A. Leathers, Brookville, 1 story, 60 x 110 ft. brick and steel garage, plain foundation, to Austin Co., 16112 Euclid Ave., Cleveland, O., $50,000.

Pa., Lansdale—Norristown Hosiery Mills Norristown, 2 story 48 x 162 ft. brick and steel factory, plain foundation, here, to W. Steele & Sons, 16th and Arch Sts., Phila. $50,000.

Pa., Philadelphia—Wittman & Moriarity Co., Inc., Ontario Ave. and C St., 2 story, 77 x 195 ft. and 1 story, 72 x 111 ft., rein.-con., steel and brick factory, plain foundation, to Turner Constr. Co., Presser Bldg., $100,000.

D. C., Washington — Fleischman Yeast Co., Langdon, alterations and addition to plant, to F. L. Wagner, 1413 H St., N. W., $50,000.

W. Va., Huntington—Imperial Ice Cream Co., Parkersburg, 2 and 1 story, 45 x 83 ft. and 40 x 60 ft. ice cream plant, here, to C. W. McNulty Co., 924 Washington Ave., $75,000.

W. Va., Huntington—O. I. Stonard Co., 834 5th Ave., jobbing house on 7th Ave. and 10th Sts., to Arnold Co., 105 South La Salle St., Chicago, $150,000.

W. Va., Maben—Raleigh Wyoming Coal Co. 1 story, 70 x 80 ft. power plant, to Rust Eng. Co., 1901 5th Ave., Pittsburgh, Pa.

W. Va., Point Pleasant—Auto Motive Mfg. Co., Dunbar, first unit of plant, 1 story, 80 x 250 ft., here, to Rust Eng. Co., 1901 5th Ave., Pittsburgh, Pa., $90,000. Noted Oct. 20.

W. Va., Richwood—Cherry River Paper Co., 1 story, 40 x 150 ft., brick and steel power house, to J. H. Wallace, 5 Beekman St., New York. $300,000.

Fla., Ft. Pierce—City addition to electric light plant, to T. B. Whitted, 806 East Blvd., Charlotte, N. C., $60,000.

Ky., Louisville—Van Camp Packing Co., 1303 South Shelby St., two 2 story, 102 x 275 ft., brick and steel factories, concrete pile foundation, Shelby and Goss Sts., to Bredeman Bros., 1232 South Shelby St., $400,000.

Ky., Louisville—R. J. Reynolds Tobacco Co., Winston Salem, 1 story, 130 x 330 ft., warehouse at 818-824 South 28th St., here, to G. H. Rommel Co., 958 Logan St. $75,000.

O., Bay Village—Northern Ohio Light & Power Co., c/o I. H. Case, Eagle Cliff, 1 story, 80 x 100 ft., brick, steel and concrete power plant, plain foundation, incl. electric lines, to R. E. Carey Co., 1500 West 112th St., Cleveland, $250,000.

O., Cleveland—Lamson & Sessions Co., 2188 Scranton Rd., 2 story, 64 x 110 ft., rein.-con. and brick factory, plain foundation, to Boldt Constr. Co., 5902 Euclid Ave., $60,000.

O., Cleveland—Refrigerating plant for city hospital, Scranton Rd., to Hibbard Co., Wise Bldg., Euclid Ave., $78,960.

O., Minerva—Lewis Electric Co., 1 story, brick and steel factory, plain foundation, to Boldt Constr. Co., 5902 Euclid Ave., Cleveland, $100,000.

Mich., Crystal Falls—Peninsular Power Co., Natl Bank Bldg., Madison, Wis., 1 story, 50 x 130 ft. electric substation, rein.-con., brick and steel, by day labor, $60,000. Mead & Seastone, State Journal Blk., Madison, Wis., engrs.

Ill., Chicago—Mandel Bros., State and Madison Sts., 1 story, 125 x 191 ft., rein.-con., brick and steel garage, 2641-59 North Crawford St., to F. Sedlak & Son, 2448 South Lawndale Ave., $75,000.

Ill., Elgin—Duty Motor Corp., 19 North Spring St., 1 story, 250 x 250 ft., brick and steel factory, to A. E. Anderson, c/o owner, $80,000.

Industrial Works (Continued)

Ill., Joliet—Suburban Ice Co., La Grange, will build ice plant, here, rein.-con., brick and stone, 100 ton capacity, by day labor. $60,000. L. E. Stanley, pres.

Wis., Hartford—Burlington Blanket Co., Burlington, 2 story, 50 x 90 ft., brick, rein.-con. and steel factory, here, to L. Kissel & Sons, Hartford, $45,000.

Wis., Manitowoc—K. O. Muehlberg Co., 209 North 9th St., 2 story, 65 x 95 ft. machine shop, brick, rein.-con. and steel, to F. Drumms, 710 South 15th St., $50,000.

Wis., Maribel—Maribel Strawcutter Co., c/o H. A. Elmer, pres., 1 and 2 story, 50 x 120 ft. factory, brick, rein.-con. and tile, by day labor. $45,000. Noted Sept. 16.

Wis., Milwaukee—Gugler Lithograph Co., 694 Bway., 1 story, 66 x 106 ft. addition to plant, brick and concrete, plain foundation, Bway., to Universal Constr. Co., 97 Wisconsin St., $60,000.

Wis., Prairie du Sac—Schmalz Bros. 1 tory, 60 x 106 ft. brick and concrete garage, plain foundation, to Willis & Deacon, Hayes Blk., Janesville, $40,000.

Minn., Duluth—Duluth Auto Exch. Co., 2 story, 100 x 140 ft., brick and rein.-con. garage, 201 East 1st St., to G. H. Lounsberry & Co., Lakeview Store Bldg., $60,000.

Mo., Ferguson—Republic Photographic Co. Kansas City, 1 story, 55 x 385 ft. and 77 x 162 ft. brick and steel factory, here, to Gamble Constr. Co., 620 Chestnut St., St. Louis, $125,000. Noted Nov. 3.

Mo., St. Louis—Automobile Garage Co., 1 story, 100 x 129 ft. garage, Easton and Valle Aves., to Chapline Constr. Co., Post Dispatch Bldg. $40,000.

Ore., Portland—Doernbecher Mfg. Co., East 28th St., along tracks Oregon-Washington R.R. & Navigation Co., 6 story factory, by day labor. $500,000. M. Patterson, c/o owner, engr.

Buildings

PROPOSED WORK

Me., Portland—High School—Bd. Educ. having plans prepared by Poor & Thomas, archts., 537 Congress St., 3 story, brick, concrete and steel, Deering Dist. $500,000.

N. H., Keene—Hospital—Hospital Comn. plans 2½ story, rein.-con. and brick. $225,000. Architect not selected.

Mass., Amherst — Laboratory—Amherst Agricultural College having plans prepared by Ritchie & Jonesberg, archts., 15 Ashburton Pl., Boston, 2 story, 75 x 195 ft., brick. $200,000. Noted Feb. 24.

Mass., Athol — Church — St. Francis Church Parish, Main St., plans 1 story, brick, stone and steel, Main St. $150,000. Architect not announced.

Mass., Attleboro—Club—B. P. O. E. plan brick and concrete, Main St., $150,000. Architect not announced.

Mass., Boston—Medical and Surgical—N. E. Deaconess Assn., 6 Deaconess Rd., having plans prepared by C. W. Williams, archt., c/o owners, 5 story, 42 x 100 ft., brick and stone, Deaconess Rd. $300,000.

Mass., Fall River—Temple—F. & A. M., Masonic Temple Bldg., plans 4 story, 75 x 140 ft., brick, concrete and steel, North Elm St. $200,000. Architect not announced.

Mass., Holyoke—Office—Holyoke Water Co., 1 Canal St., plans 4 story, Dwight St. $150,000. Architect not announced.

Mass., Medford—Apartment—J. A. and F. A. Walker, 460 Salem St., having plans prepared, 5 story, brick and steel, Bway. $150,000. Private plans.

Mass., Medford—Club—B. P. O. E. plan brick, Forest St. $150,000. Architect not selected.

Mass., Medford — Temple — Masonic Temple Assn., Mt. Hermon Lodge, plans brick and steel, Forest St. $150,000. Architect not selected.

Mass., New Bedford—Bank—First Natl. Bank, 110 Union St., having sketches made by Hutchins & French, archts., 8 Winter St., Boston, stone, brick and steel, Union St. To exceed $150,000.

Mass., Northampton — Gymnasium—Bd. Trustees Smith College plans 1½ story, brick and steel, campus. $175,000. Architect not announced .

Mass., Taunton—Office—M. Dana, 202 Pemberton Bldg., Boston, plans, brick, Main St., here. $200,000. Architect not selected.

Mass., Worcester—Business—D. Shapiro 122 Green St., having plans prepared by E. T. Chapin, archt., Mutual Bldg., 2 story, 92 x 160 ft., brick and steel, Harding and Harrison Sts. $150,000.

Mass., Worcester — Church — St. Joseph Roman Catholic Churh, 34 Wall St., plans 1 story, brick, stone and steel, Hamilton St. $150,000. Architect not announced.

R. I., Cranston—Library—Owner, c/o R. I. Hospital Trust Co., 15 Westminster St., Providence, plans brick, stone and concrete, Broad St. $400,000. Architect not announced.

R. I., Providence—College—Rhode Island College of Pharmacy, 242 North Main Sts., plans 3 story, brick and steel, Benefit and Waterman Sts. $150,000. Architect not selected.

R. I., Woonsocket—Club—B. P. O. E. plans brick and steel, Main St. $150,000. Architect not selected.

Conn., Groton—Home—I. O. O. F. plans 2 or 3 story, brick and concrete, overlooking Thames River. $250,000. Architect not selected.

Conn., Stamford—Business—S. S. Kresge Co., Kresge Bldg., Detroit, Mich. plans 3 story, Atlantic St., here. $150,000. Private plans.

N. Y., Brooklyn—Apartment and Store—Bermali Realty Co., c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., New York, having plans prepared 4 story, 100 x 120 ft., brick, steel and stone, plain foundation, 13th Ave. and 55th St., here. $250,000.

N. Y., East Syracuse—School—Union Free School Dist. 5, De Witt, having plans prepared by M. L. King, archt., Snow Bldg., Syracuse, 3 story, brick, concrete and steel, here. $300,000.

N. Y., New York—Apartment—J. Brown, c/o D. S. Lang, archt. and engr., 110 West 34th St., soon takes birs 5 story, 100 x 100 ft., brick, steel and stone, plain foundation, West 136th St. $200,000.

N. Y., New York—Apartment—W. Korn, c/o G. and E. Blum, archts., 505 5th Ave., making sketches 14 story, 100 x 125 ft., brick, steel and stone, plain foundation, 58th St. and Park Ave. $1,000,000. C. Mayer, 110 West 40th St., engr.

N. Y., New York—Apartment—Estate of E. H. Van Ingen, c/o Cross & Cross, archts. and engrs., 681 5th Ave., having preliminary plans prepared 12 story, 50 x 100 ft., brick, steel and stone, plain foundation, 956 5th Ave. $400,000.

N. Y., New York—Bank—North River Savings Bank, 31 West 34th St., having sketches made by C. E. Birge, archt. and engr., 29 West 34th St., 2 story, 75 x 100 ft., brick, steel and stone, plain foundation, 206 West 34th St. $200,000. Noted Nov. 3.

N. Y., New York—Church—St. Marks Church, c/o Sibley & Featherston, archts. and engrs., 101 Park Ave., had plans prepared 2½ story, brick and limestone, plain foundation, St. Nicholas Ave. and 137th St. $300,000.

N. Y., New York—Office—Estate of A. Finkenberg, 552 Riverside Dr., having preliminary plans prepared by L. S. Weeks, archt. and engr., 101 Park Ave., 12 story, 75 x 100 ft. brick and limestone, plain foundation, 3rd Ave. and 12th St. $500,000.

N. Y., New York—Office—Interzone Corp., c/o C. Gilbert, archt., 244 Madison Ave., having plans prepared 14 story, Maiden Lane and William St. $550,000.

N. J., Red Bank—Theatre—P. Coleman, c/o Francisco & Jacobus, archts. and engrs., 511 5th Ave., New York, having sketches made, 1 story, brick, steel and stone, plain foundation, West Front St., here. $350,000.

Pa., Abington—High School — Abingtop Twp. School Bd., c/o W. F. Wooley, McKinley, plans 2 story, brick and stone, plain foundation, here. $180,000. Heacock & Hokanson, 1218 Chestnut St., Phila., archts.

Pa., Altoona—High School—Catholic Diocese plans 3 story, 100 x 120 ft. brick and steel, 6th Ave. and 11th St. $150,000. J. J. McCort, 1211 13th St., bishop. Architect not selected.

Pa., Altoona — High School—Directors School Dist., 6th Ave. and 15th St., take bids in spring 2 story, 90 x 200 ft. brick and stone. $800,000. J. Millard, Hutchinson Bldg., Altoona and W. B. Ittner, Bd. Educ. Bldg., St. Louis, Mo., archts.

Pa., Harrisburg—Temple—Labor Temple Assn., 310 Market St., plans 4 story. $150,000. Architect not selected.

Pa. Johnstown—Y. W. C. A., Somerset St., plans 62 x 126 ft. brick, Locust St. $150,000. W. S. Gray, pres.

Pa., Phila.—Apartment—Acme Real Estate Co., c/o R. R. Cooper, 1330 Lombard St., having plans prepared by C. H. Wilson, archt., 2028 West Berks St., 4 story, 50 x 129 ft., brick and steel, plain foundation, 1732-1736 Christian St. $150,000.

Pa., Phila. — Apartment — Pennsylvania Apartment & Hotel Bldg. Co., Scranton, had plans prepared by D. H. Morgan, archt., Connell Bldg., Scranton, 3 story, 175 x 180 ft. stone, tile and brick, plain foundation, Bryn Mawr and Windfield Aves., here. $200,000.

Pa., Phila.—Clubhouse—B.P.O.E. No. 2. Juniper and Arch Sts., plan 10 story, 160 x 196 ft. brick and stone, plain foundation, Broad and Wood Sts. $1,000,000. Will not mature until 1923. Architect not selected.

Pa., Phila.—Hospital—Womens Hospital of Phila., 22nd St. and North College Ave., having plans prepared by C. A. Ziegler, archt., 1218 Chestnut St., 6 story, 50 x 100 ft. rein.-con., brick and steel, plain foundation. $250,000.

Pa., Phila.—Theatre—A. Felt, 140 South 52nd St., having plans prepared by H. C. Hodgens, archt., 130 South 15th St., 1 story, 38 x 80 ft. and 125 x 134 ft. rein.-con. brick and steel, plain foundation, 5212-18 Market St. $250,000.

Pa., Phila.—Y. M. H. A. having preliminary plans prepared by F. E. Hahn, archt., 1112 Chesnut St., 5 or 7 story, 100 x 200 ft. $750,000.

D. C., Washington — Home — Central Union Mission, 622 Louisiana Ave., having plans prepared by A. P. Clark, Jr., arch., 816-14 th St., N. W., for home. $200,000.

Va., Norfolk — Auditorium, etc. — Preliminary plans concrete, stone and brick auditorium, market, city hall, federal building and library, known as Norfolk Civic Center Project. $3,000,000. J. C. Rue, city engr.

W. Va., Huntington—Schools—Bd. Educ. plans election to vote on $2,000,000 bonds for schools.

N. C., Charlotte — School — Lockwood, Greene & Co., archts., Charlotte, opens bids about Dec. 1, 3 story, 216 x 273 ft., tile and brick or stucco, East 7th St., for Bd. Educ. $225,000.

N. C., Winston-Salem — Schools, etc—Voted $1,000,000 bonds for schools, $50,000 for hospital. J. G. Haynes, mayor. Noted Sept. 22.

Fla., De Land—Hotel—E. R. Conrad, De Land, interested in syndicate which plans to build hotel. $200,000.

Fla., Jacksonville — Schools—Duval Co. School Bd. to vote on $700,000 bonus for new wings to Duval High School, Central Grammar School and additions to other schools; $300,000 for two 2 story Junior High Schools, steel, concrete and brick.

Ala., Birmingham—Store—Butler Bros., 2126½ First Ave., plans 2 or 3 story, 120 x 140 ft., 23rd St. and 3rd Ave. $200,000. Architect not selected.

Ky., Covington—Church—First Presbyterian Church having plans prepared by Nevin & Wichmeyer, archts., 1317 Starks Bldg., Louisville, 2 story, rein.-con. and brick. $150,000.

Ky., Louisville—Club—Louisville Council, Knights of Columbus, having plans prepared by T. J. Nolan, archt., Courier-Journal Bldg., 8 story, 85 x 120 ft., rein.-con., brick and steel, concrete pile foundation, 816-20 South 4th St. $500,000.

Ky., Louisville—Lodge—Prestons Lodge of Masons, Shelby and Main Sts., having plans prepared by A. E. Weinedel, archt., 500 Lincoln Bldg., 2½ story, 65 x 140 ft., brick and stone, concrete pile foundation, Jackson St. and B'way. $150,000.

Buildings (Continued)

Ky., Louisville—School—State having sketches made by H. L. Nevin, archt., 1317 Starks Bldg., for Industrial School for Adult Blind, 3 story, 120 x 180 ft., brick, concrete pile foundation, Frankfort Ave. $200,000.

O., Canton—Commercial—L. Kaven, 419 Tuscarawas St. E., plans 3 story, 66 x 200 ft., 6th St. and Cherry Ave. S. E. Cost between $150,000 and $175,000.

O., Canton—Office and Mercantile—J. E. Sell, Market Ave. N., plans 6 story, 66 x 200 ft., 4th St. and Cleveland Ave. N. W. $300,000.

O., Cleveland—Apartment—J. W. Thompson, 5103 Euclid Ave., plans 3 story, brick and timber, plain foundation 11452 Euclid Ave. $200,000. Private plans.

O., Cleveland—Bank—Union Trust Co., Citizens Bldg., had plans prepared by Graham, Anderson, Probst & White, archts., 80 East Jackson Blvd., Chicago, Ill., 2 story, 45 x 75 ft., brick, steel and concrete, plain foundation, West 93rd St. and Lorain Ave. $150,000.

O., Cleveland—Church—W. E. Hunter, archt., 1436 Washington Blvd., Detroit, Mich., preparing plans 2 story, 100 x 150 ft., brick, stone and steel, plain foundation, here. $400,000. Owner's name withheld.

O., Cleveland—Commercial and Apartment— B. Koslen, 10612 Olivette Ave., plans 3 story, 94 x 110 ft., brick and timber, plain foundation, East 125th St. and Edmonton Ave. $150,000. Architect not selected.

O., Cleveland — Commercial and Apartment—Meyers, West 25th St. Market Co., c/o Hulett & Stanton, archts., 3129 Scranton Rd., having plans prepared, 2 story, 39 x 120 ft., brick, steel and concrete, plain foundation, West 25th St. and Meyers Ave. $200,000.

O., Cleveland—Commercial and Apartment—M. Morris, 603 Republic Bldg., having plans prepared by A. E. Curtis, archt., 605 Republic Bldg., 2 story, 120 x 180 ft., brick and timber, plain foundation, East 152nd St. and Waterloo Rd. $150,000.

O., Cleveland—Commercial and Market—Bway. Properties Co., c/o C. E. Camp, of Euclid-East 46th St. Market, having plans prepared by A. C. Wolf, archt., Swetland Bldg., 2 story, brick, steel and concrete, plain foundation, 5800 Bway. $500,000.

O., Cleveland—School—Bd. Educ., East 6th St. and Rockwell Ave., having plans prepared by W. R. McCormack, archt., East 6th St. and Rockwell Ave., 2 story, brick, steel and concrete addition, plain foundation, Addison Rd. $200,000. Noted Feb. 3.

O., Cleveland—Store and Apartment—B. Koslin, 10612 Olivette Ave., having plans prepared by M. Weis, archt., 618 Union Bldg., 3 story, 94 x 110 ft., brick and timber, plain foundation, East 125th St. and Edmondton Ave. $150,000.

O., Cleveland Heights—(Warrenville, P. O.)—Apartment—M. B. Abrams, Society for Savings Bldg., Cleveland, having plans prepared by A. F. Janowitz, archt., Permanent Bldg., Cleveland, 3 story, 95 x 105 ft., brick and timber, plain foundation, Euclid Blvd. and Coventry Rd., here. $150,000.

O., Dayton—Market—City plans 1 story, 80 x 450 ft., rein.-con., 3rd St. $150,000. F. O. Eichelberger, city mgr. Architect not selected.

O., Dover—Bank and Office—Reeves Banking & Trust Co. having plans prepared by Walker & Weeks, archts., 1900 Euclid Ave., Cleveland, 2 story, 65 x 124 ft., brick, steel and concrete, plain foundation, Cherry St. $150,000.

O., Ironton—Bank—First Natl. Bank having tentative plans prepared by F. L. Packard, archt., New Hayden Bldg., Columbus, about 6 story, rein.-con., brick and stone, Main St. $200,000.

O., Westerville—School—Voted $190,000 bonds for school.

Mich., Detroit—Apartment—S. Braiker, 574 Harper Ave., having plans prepared by M. H. Finkel, archt., 333 Majestic Bldg., 4 story, 100 x 120 ft. brick and steel, plain foundation, Merrick Ave. and 3rd St. $250,000.

Mich., Detroit — Apartment—Cooper Constr. & Realty Co., 322 West Fort St., having preliminary plans prepared by M. H. Finkel, archt., 333 Majestic Bldg., 10 story, 60 x 180 ft., rein.-con., brick, steel and stone, plain foundation, Woodward Ave.

Mich., Detroit—Apartment and Store—P. R. Rossello, archt., 406 Congress Bldg., preparing plans 3 story, 102 x 172 ft. brick, steel and stone, plain foundation, Garfield and Chene Sts. $150,000. Owners name withheld.

Mich., Detroit—Schools—Bd. Educ. having plans prepared by Malcolmson, Higginbotham & Palmer, archts., 405 Moffat Bldg., 2 story addition, Grand River Ave., $200,000; 2 story addition, East Melford St., $150,000; rein.-con., brick and steel, plain foundations.

Mich., Detroit—School—Bd. Educ. having plans prepared by Malcomson, Higginbotham & Palmer, archts., 405 Moffat Bldg., 2 story, rein.-con., brick and steel addition, plain foundation, Seneca Ave. near Newlands Ave. $150,000.

Mich., Grand Rapids—Hotel—B. K. Gibson & Co., archts., 608 South Dearborn St., Chicago, Ill., soon take bids 8 story, 152 x 154 ft., rein.-con., Monroe Ave., here, for Furniture City Realty Co., 515 Lyons Ave., $1,000,000.

Mich., Novi—High School—Consolidated High School having plans prepared by Van Leyen, Schilling, Keough & Reynolds, archts., 3440 Cass Ave., Detroit, 2 story, 115 x 154 ft. rein.-con., brick, steel and stone, plain foundation. $150,000.

Ill., Aurora—Home—B. P. O. E., c/o J. M. Raymond, 177 Downer Pl., having plans prepared by Zimmerman-Saxe & Zimmerman, archts., 63 East Van Buren St., Chicago, 2 story, 80 x 243 ft., rein.-con., brick and stone. $150,000.

Ill., Chicago — Temple — C. Hatzfield, archt., 7 South Dearborn St., opens bids about Dec. 1, 3 story, 91 x 112 ft., brick and terra cotta, Addison and Rita Sts., for Wrights Grove Lodge 779, c/o H. Reinbach, 1442 Belmont Ave. $300,000. Noted Sept. 22.

Ill., Delavan—High School—Bd. Educ. having plans prepared by Deal & Ginzel, archts., I. O. O. F. Bldg., Lincoln, 2 story, rein.-con., brick and stone high school and 88 x 141 ft. power house, 90 ft. stack. $150,000.

Ill., Elgin—Hospital—Larkin Home for Children, Larkin and Melrose Aves., plans 3 story, rein.-con., brick, stone and steel. $175,000. Architect not selected.

Ill., Elgin—Hotel—Citizens Hotel Co., c/o C. Ackermann, 470 Douglas Ave., plans 4 story brick, rein.-con. or steel frame. $300,000. Architect not selected.

Ill., Elgin—Theatre—R. Crocker, Star Theatre Bldg. plans 2 story, 66 x 185 ft., rein.-con., brick, steel and stone. $225,000. Architect not selected.

Ill., Freeport—Home—Estate of J. Emmert plans 2 story, Home for Aged, rein.-con., brick and stone. $200,000. Architect not selected.

Ill., Homer — High School—Bd. Educ. plans 2 story, rein.-con., brick and stone. $150,000. C. Babb, pres. Architect not selected.

Ill., Joliet—School—Bd. Educ. having plans prepared by C. W. Webster, archt., Cutting Bldg., 2 story, 96 x 100 ft. rein.-con., brick and stone. $150,000. J. F. Keel, clk.

Ill., Morris—School—Bd. Educ. plans 2 story, rein.-con., brick and stone. $150,000. A. G. Harrison, pres. Architect not selected.

Ill., Mt. Carroll—Dormitory—Frances Shimer School for Girls, c/o W. P. McKee, dean, plans 3 story dormitory. $150,000. Architect not selected.

Ill., Pana — Schools—Bd. Educ. having plans prepared by A. L. Pillsbury, archt., Bloomington, two 2 story, rein.-con., brick and stone. $150,000 each. E. L. White, pres. Noted Oct. 13.

Ill., Rogers Park — Theatre and Apartment—Newhouse & Bernham, archts., 4630 Prairie Ave., Chicago, making sketches and receive bids in spring, 4 story, 150 x 175 ft., rein.-con., brick and steel, Howard St. and Malvern Ave., for V. G. Seaver, c/o architect. $2,000,000.

Ill., Springfield—Hospital—County Medical Society plans 4 story rein.-con., brick and stone. $500,000. I. C. Taylor, chn. Architect not selected.

Ill., Tolono — High School—Bd. Educ. plans 2 story, rein.-con., brick and stone. $150,000. J. Martin, pres. Architect not selected.

Ill., Tuscola—School—Bd. Educ. having plans prepared by Leise & Ludwig, archts., Danville, 2 story, rein.-con., brick and stone. $150,000. L. C. Hines, pres.

Wis., Fond du Lac—City Hall—Plans 4 story, 900 x 200 ft., brick and steel. $250,000. A. M. Hunter, clk. Architect not selected.

Wis., Fond du Lac—Hotel—Wisconsin Hotel Co., c/o D. Sargent, genl. mgr., Palmer House, 29 South Main St., having plans prepared by N. S. Spencer & Son, archts., 37 West Van Buren St., Chicago, 8 story, 40 x 180 ft. and 40 x 80 ft. brick, concrete and steel, plain foundation. South Main St. $400,000.

Wis., Green Bay — High School — Bd. Educ. having plans prepared by Foeller, Schoeber Co., archts., 123 North Washington St., 4 story, 160 x 230 ft., brick and rein.-con. $500,000. A. W. Burton, secy.

Wis., Iola—High School—Bd. Educ. having plans prepared by E. Tough, archt., 24 East Mifflin St., Madison, 2 story, 60 x 190 ft., brick, rein.-con. and tile, Main St. $150,000.

Wis., Madison — Church, etc. — Calvary Lutheran Church, c/o A. Haentzchel, 707 West Dayton St., plans 2 or 3 story, 100 x 150 ft., brick, steel and stone. $200,000. Architect not selected.

Wis., Madison — Hospital — Bd. Regents, University of Wisconsin, having plans prepared by A. Peabody, archt., Capitol Bldg., 6 story, 150 x 250 ft., brick, steel and stone, Warren St. $1,200,000. M. E. McCaffery, secy.

Wis., Milwaukee—Club House—B. P. O. E. No. 46, 448 Jefferson St., receiving competitive sketches for 5 story, 132 x 160 ft., brick and concrete, plain foundation, Mason St. Cost between $500,000 and $600,000. Architect not selected. Noted Nov. 3.

Wis., Milwaukee—Hospital—City having plans prepared by C. E. Malig, archt., City Hall, 2 story, 45 x 268 ft. brick and concrete addition to South View Hospital, plain foundation, Mitchell St. $160,000.

Wis., Milwaukee — Lodge — Columbia Lodge No. 11, Knights of Pythias, 538 7th St., plans 3 story, 60 x 100 ft. brick and concrete, plain foundation. Cost between $125,000 and $150,000. Architect not selected.

Wis., Milwaukee — School and Sisters Home—St. Rose Catholic Congregation, 3007 Sycamore St., plans 2 story, brick and concrete, plain foundation, 30th St. $200,000. P. Durnin, pastor. Architect to be selected soon.

Wis., Milwaukee—Store, Apartment and Office—Reitman & Straus Co., 97 Wisconsin St., having plans prepared by C. W. Valentine, archt., 405 Bway., 2 story, 96 x 118 ft., brick and tile, plain foundation, Maryland and Dawner Sts. $150,000.

Wis., Milwaukee—Synagogue—Beth Israel Congregation, 548 10th St., having preliminary plans prepared by Leiser & Holst, archts., 105 Wells St., 1 and 2 story, 67 x 117 ft., brick and stone, plain foundation, 10th and Lee Sts. $150,000.

Wis., Milwaukee—Theater and Business—Saxe Bros., 106 5th St. and O. Brachman, 425 East Water St., having preliminary plans prepared by M. Tullgren & Sons, archts., 425 East Water St., 7 or 8 story, 150 x 200 ft., rein.-con. steel and brick, plain foundation, Grand Ave. and 6th St. $2,000,000. Noted May 12.

Wis., New London—Hotel—Central Wisconsin Hotel Co., 148 Main St., Menasha, plans 4 story, 60 x 190 ft., rein.-con. and steel. $200,000. Architect not selected.

Wis., Oregon—High School—Bd. Educ., c/o Secretary, having plans prepared by E. Tough, archt., 24 East Mifflin St., Madison, 2 story, 60 x 140 ft., brick, rein.-con., tile and stone, Main St. $150,000.

Wis., Phelps—High and Grade Schools—Bd. Educ., c/o K. M. Thompson, secy., having plans prepared by Claude & Starck, archts., Badger Annex, Madison, 2 story, 90 x 150 ft., brick and rein.-con. $150,000.

Wis., Platteville—School—St. Marys Congregation plans 3 story, brick, rein.-con. and tile. $150,000. F. J. Lillis, pastor. Architect not selected.

Wis., Pulaski—Hotel—H. J. Gajewski, (owner) Pulaski, and Smith & Reynolds, archts., Manitowoc, open bids about Nov. 25,

Buildings (Continued)

3 story, 76 x 150 ft. brick, rein.-con. and tile. $150,000. Noted Sept. 22.

Wis., Stevens Point—High School—Bd. Educ. plans 3 story 60 x 160 ft., rein.-con. and steel, Clark St. $155,000. J. M. Pfiffner, chn. Architect not selected.

Wis., Two Rivers — Theatre — Rivoli Amusement Co. having plans prepared 2 story, 150 x 160 ft., brick and rein.-con. $150,000. D. S. Colburn, pres. Private plans.

Ia., Cedar Rapids — High School—Bd. Educ. having plans prepared by B. Rugh, archt., 811 Security Bldg., 3 story, 120 x 240 ft., rein.-con., brick, tile and stone. $225,000. J. A. Motejl, secy.

Ia., Creston—Club—Knights of Columbus, c/o J. M. Hickey, chn. building com., plans 5 story, 108 x 120 ft., rein.-con. and brick, West Adams St. $200,000. Architect not selected.

Ia., Davenport—Station—Chicago, Milwaukee & St. Paul R.R., 80 East Jackson Blvd., Chicago, plans 4 story, brick, stone and steel, here. $800,000. C. F. Loweth, ch. engr. C. R. Rawson, c/o owner, archt.

Ia., Des Moines — Temple — Adelphic Lodge 509, c/o M. L. Patterson, 1211 West 22nd St., having plans prepared by Keffer & Jones, archt., 204 Masonic Temple Bldg., 2 story, rein.-con., brick, stone and steel. $155,000.

Ia., Iowa City—Club—Knights of Columbus, 117½ East College St., plans 2 story, brick, steel and stone. $150,000. W. H. Hart, secy. Architect not selected.

Ia., Ottumwa—Y. W. C. A. having plans prepared by Croft & Boerner, archts., 1006 Marquette Ave., Minneapolis, Minn., altering 4 story, rein.-con., brick, tile and stone. $150,000.

Ia., State Center—School—Bd. Educ. having plans prepared by H. E. Reimer, archt., Marshalltown, 3 story, rein-con., brick and stone. $150,000.

Minn., Minneapolis—Church—First Baptist Church, 10th St. and Harmon Pl., hanving plans prepared by Lamoreaux & Thorshov, archts., 1028 Andrus Bldg., church, etc., 11th St. and Harmon Pl. $400,000.

Minn., Minneapolis—School—Bd. Educ. having plans prepared by E. H. Enger, archt., 305 City Hall, 2 story, rein.-con., brick and tile addition, 49th St. and Vincent Ave. S. $150,000. G. F. Womrath, business supt.

Minn., Stillwater—Hotel—Stillwater Hotel Co. plans 4 story rein.-con., brick, tile and stone. $175,000. W. H. Smithson, chn. building com. Architect not announced.

Kan., Atchinson—Academy—Mt. Scholastic Acedemy, 8th and Eccher Sts., having plans prepared by E. Brielmaier & Sons, archts., 6432 Bway., Milwaukee, Wis., 4 story, 57 x 300 ft., rein.-con., brick and stone. $650,000.

Kan., Leavenworth — High School—Bd. Educ. voted $450,000 bonds 2 story, brick, rein.-con. and stone. $450,000. M. E. Moore, supt. Architect not selected.

Kan., Salina — Memorial Hall—Having plans prepared by C. W. Shaver, archt., Salina, 4 story, brick, and rein.-con., stone trim. $300,000.

Kan., Topeka—Hotel—J. W. Renker, 822 Kansas Ave., having plans prepared by W. Wahlschlager, archt., 65 East Huron St., Chicago, 8 story 100 x 150 ft., rein.-con. and terra cotta. $700,000.

Kan., Wichita—Apartment—W. B. Barr, 517 North Topeka Ave., having plans prepared by J. Eberson, archt., 69 East Van Buren, Chicago, 2 story, V-shaped, brick and rein.-con., stone trim. $165,000.

Kan., Wichita — Temple — Sunflower Lodge 86, c/o W. H. McCain, secy., plans 5 story, 70 x 140 ft., brick, steel and rein.-con. $400,000. Architect not selected.

S. D., Sioux Falls—Gymnasium—Diocesan College, c/o Bishop of Sioux Falls, had plans prepared by E. H. Lundie, archt., 532 Endicott Bldg., St. Paul, Minn., 3 story, 60 x 90 ft. with two 2 story 40 x 70 ft. wings, rein.-con., brick, tile and stone. $150,000.

N. D., Fargo — Lodge—Masonic Order having plans prepared by Bertrand & Chamberlin, archts., 616 Northwestern Bank Bldg., Minneapolis, Minn., 2 or 3 story, brick, concrete and stone. $150,000.

Wyo., Cheyenne—Lodge—B. P. O. E. plan 5 story brick, 18th and Capitol Sts. $250,000. R. J. Hofman, exalted ruler. Architect not selected.

Mo., Cape Girardeau — School — State Teachers College having plans prepared by G. Study, archt., Arcade Bldg., St. Louis, 2 story, rein.-con., brick and stone. $150,000.

Mo., Columbia—Church and Dormitory—Missouri Methodist Assn. plans 2 story, rein.-con., stone and steel. $400,000. W. L. Halberstadt, pastor. Architect not selected.

Mo., Columbia—Science Hall—Stephens College, c/o A. Wood, pres., plans 3 story, rein.-con., brick and stone. $150,000. Architect not selected.

Mo., Kansas City — Store and Office—Lloyd & Medes, Reliance Bldg., having plans prepared by McKecknie & Trask, archts., Gloyd Bldg., 2 story, 50 x 120 ft., rein.-con., brick and stone, 9th and McGee Sts. $150,000.

Mo., Kirksville—School—Northeast Missouri State Teachers College, c/o J. J. Kirk, pres., having plans prepared by R. H. Sanneman, archt., Reserve Bank Bldg., 3 story, rein.-con., brick and stone. $150,000. Noted June 9.

Mo., Osceola—Hotel—G. E. Linn plans Socosa Hotel, concrete, on Osage Resort Grounds, near here. $250,000. Architect and engineer not selected.

Mo., St. Louis — Church — Sixth Church Christian Scientist, Garrison and Natl. Bridge Aves., having plans prepared by Wedemeyer & Nelson, archts., Wainwright Bldg., 2 story, 120 x 130 ft., brick, stone steel and terra cotta, Natl. Bridge and Prairie Aves. $250,000. H. M. Birschler, chn.

Mo., St. Louis—Hospital—St. Louis Childrens Hospital, 500 South Kingshighway, having plans prepared by Mauran, Russell & Crowell, archts., Chemical Bldg., 3 story, rein.-con., brick and stone. $175,000.

Okla., Checotah—Memorial—I. O. O. F., c/o A. T. Whitworth, secy., Carmen, having plans prepared by M. T. Hardin, archt., 904 North H St., Muskogee, 2 story, rein.-con., brick and stone, here. $175,000.

Okla., Frederick—High School—Bd. Educ. having plans prepared by Tonini & Bramblet, archts., Terminal Arcade Bldg., Oklahoma City, 2 story, rein.-con., brick and stone. $150,000. R. R. Simms, secy.

Okla., Oklahoma City—Hospital—Oklahoma County, c/o E. S. Butterfield, chn., plans 4 story, rein.-con., brick and stone. $2,000,000. Architect not selected.

Col., Boulder—High School—Election Nov. 22 $362,000 bonds high school for School Dist. 3. V. M. Smith, secy.

Utah, Salt Lake City — Club—B. P. O. E., 59 South State St., having plans prepared by Scott & Welch, archts., Dooley Bldg., 5 story, 165 x 185 ft., South Temple St. $300,000.

Ore., Portland — Mercantile—Meier & Frank, 5th and Morrison Sts., having plans prepared by Sutton & Whitney, archts., Lewis Bldg., 10 story, rein.-con., 13th, 14th, Everett and Flanders Sts. $1,000,000.

Cal., Azusa—Schools—Atrus Union High School Dist., c/o J. C. and W. H. Austin, archts., 1125 Baker-Detwiler Bldg., Los Angeles, plans group of high school buildings. $300,000 bonds sold.

Cal., Long Beach—Hotel—O. H. Hubbard, 1220 East Ocean Blvd., having plans prepared by J. and D. B. Parkinson, archts., 420 Title Insurance Bldg., Los Angeles, 7 story, 50 x 150 ft., rein.-con., Cedar St. and B'way. $400,000.

Cal., San Diego—High School—Bd. Educ., Guarantee Title Bldg., takes bids about Jan. 1, 2 story concrete, brick and tile, City Park. $300,000. T. C. Kistner, 307 Bancroft Bldg., archt.

Ont., Kitchener—School—School Bd. having plans prepared by W. Franklin, archt., c/o Bd. Educ., 10 room addition, brick. $150,000.

Ont., St. Thomas—Hospital—Voted $160,000 bonds for 3 story, 125 x 130 ft. brick and stone addition, Pearl St., for Hospital Bd. N. R. Darrach, Talbot St., archt. Noted Oct. 6.

BIDS DESIRED

Mass., Lawrence—High School—Dec. 15, by School Bd., 4 story, 37 x 115 ft. and 92 x 147 ft., brick and stone, plain foundation. $1,000,000. J. E. Allen, 283 Essex St., archt.

Conn., West Hartford — High School—School Comrs. receiving bids 2 story, 70 x 100 ft., brick, stone and steel, plain foun- New Britain Ave. $150,000. W. T. Marchant, 26 Pearl St., Hartford, archt. Noted Oct. 27.

N. Y., Fleischmanns—Hotel—H. Levinson, Pinewood Hotel, Lakewood, N. J., 4 story, 35 x 185 ft., brick, steel and stone, plain foundation, here. $175,000. Work will be done by separate contracts. D. S. Lang, 110 West 34th St., New York, archt. and engr.

N. Y., New York—Stores—J. Dillard, c/o Seelig & Finkelstein, archts. and engrs., 44 Court St., Brooklyn, several 2 story, brick and steel, plain foundations, Southern Blvd., here. $200,000. Work will be done by separate contracts under supervision of architects.

N. Y., Thiells—Cottages—Dec. 6, by M. B. Patterson, pres. Bd. Mgrs. Letchworth Village, 7 Wall St., New York, 8 cottages, (Q, R, S, T, U, V, W and X) and Service Building, Girls' Group, Letchworth Village, here. L. F. Pilcher, Capitol, Albany, state archt.; adv. this issue. Noted June 23.

N. J., Elizabeth — Clubhouse—Dec. 2, (change of date), by King & Campbell, archts. and engrs., 38 West 40th St., New York, 2 story, brick and stone addition, brick foundation, here, for B. P. O. E., 211 Broad St. $150,000. Noted Oct. 13.

W. Va., Clarksburg—Store and Office—Folie Bros., owners, and Colmboe & Pogue, archts., Empire Bldg., taking bids 2 story, 75 x 75 ft. $150,000. Noted Nov. 3.

Fla., Tallahassee—Capitol—Dec. 12, by Bd. State Institutions, two 3 story wings, concrete and steel. $250,000. H. J. Klutho, St. James Bldg., Jacksonville, archt. Noted Aug. 18.

Ky., Lexington—Church—Second Presbyterian Church taking bids 1 story, 60 x 100 ft., brick, stone and steel, plain foundation. $200,000. Cram & Ferguson, 20 Beacon St., Boston, Mass., archts.

Ky., Louisville—Church—A. C. Zoeller, receiving bids 2 story, 52 x 110 ft., rein.-con. and brick, concrete pile foundation, Cane Run Rd. $150,000. F. Erhart, Norton Bldg., archt.

O., Dayton—Hospital—Nov. 29, by Natl. Military Home, c/o C. W. Wadsworth, 3 story, brick, steel and concrete, plain foundation. $500,000. Schenck & Williams, 908 Mutual Home Bldg., archts.

O., Dayton—Schools—Dec. 2, by Bd. Educ., Mad River Twp., R.R. 17, four 1 and 2 story, brick schools. $175,000. W. R. Herby, 1109 U. B. Bldg., archt.

O., Dayton — Schools — Dec. 15, by Bd. Educ., 2 story, 8 room addition to Irving School and 2 story, 15 room addition to Patterson School, rein.-con. $150,000. W. M. Hunter, pres. Private plans. Noted Jan. 27.

O., Lakewood (Cleveland P. O.)—Market—Nov. 26, W. R. Powell, archt., Rose Bldg., Cleveland, 1 and 2 story, 78 x 281 ft., brick, steel and concrete, plain foundation, 111826 Detroit Ave., here, for Lakewood Market House Co. $200,000. Noted Nov. 10.

Mich., Detroit—Church—Dec. 1, by Van Leyen, Schilling, Keough & Reynolds, archts., 3440 Cass Ave., 2 story, 92 x 265 ft., brick, steel and stone, plain foundation, 12th St. and LaSalle Gardens, for St. Agnes Parish, c/o architects. $300,000. Noted Nov. 3.

Mich., Detroit—Office—Jan. 1, by a H. Gould & Sons, archts. and engrs., 610 Empire Bldg., 13 story, 93 x 160 ft. rein.-con., brick, steel, stone and terra cotta, plain foundation, Clifford and Columbia Sts., for United Brotherhood of M. of W. E. & R. S. L., 61 Putnam Ave. $1,250,000.

Mich., Detroit—School—Nov. 21, by Bd. Educ., 2 story, rein.-con., brick and steel addition, plain foundation, Grand River Ave. and West Grand Blvd. $200,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Buildings (Continued)

Mich., Detroit—School—Nov. 22, by Bd. Educ., 2 story, rein.-con., brick and steel addition, plain foundation, Ogden Ave. $150,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Mich., Grosse Pointe Park (Detroit P. O.)—School—Nov. 21, by A. F. Meininger, secy., School Dist. 1, Grosse Pointe Twp., 475 St. Clair Ave., 2 story, rein.-con., brick and steel, plain foundation, St. Paul and Beaconsfield Aves. $150,000. G. J. Haas, 1514 Kresge Bldg., Detroit, archt.

Mich., Saginaw — School — Dec. 7, by Cowles & Mutscheller, archts., Chase Blk., 3 story, 176 x 291 ft. rein.-con., brick and steel, Weadock St. S., for Bd. Educ. $850,000.

Ill., Peoria—School—Nov. 22, Bd. Educ. and Hewitt & Emerson, archts., Peoria Life Bldg., Harrison School, 2 story, rein.-con., brick and stone. $165,000. G. Mitchell, pres.

Kan., Salina—Hospital—Nov. 23, by C. W. Shaver, archt., Salina, 3 story, for St. Barnabas Hospital, c/o Bishop Sage, Christ Cathedral. $200,000. Noted Nov. 3.

Mo., St. Louis—Exchange—Nov. 22, by I. B. Timlin, archt., 314 North Bway., 2 story, 86 x 110 ft., rein.-con., brick and stone, 23rd and Locust Sts., for Southwestern Bell Telephone Co., c/o P. J. Crowley, secy., 314 North Bway. $150,000.

S. D., Huron—Court House and Jail—Dec. 14, Bd. Supervs. Beadle Co., c/o H. W. Gardner, aud., 3 story, 98 x 114 ft., rein.-con., brick, tile and stone, $300,000. W. E. Hulse & Co., 320 Grain Exch. Bldg., Sioux City, Ia., archts.

BIDS RECEIVED

Mass., Newton — High School—Bldg. Dept., 3 story, 57 x 241 ft. and 61 x 70 ft., brick and stone, plain foundation, Walnut St., from M. W. Ryan, 34 Fayette St., Cambridge, $213,000; F. G. Coburn, Old South Bldg., Boston, $228,000; J. W. Duff, Inc., 146 Summer St., Boston. $234,000. Noted Nov. 3.

N. Y., Schenectady—Schools—Bd. Contract & Supply, City Hall Annex opened bids Oct. 19, (1) Oneida St. School, (2) Riverside School, (3) Central Park School, from Feeney & Sheehan Constr. Co., 164 Montgomery St., Albany, (1) $176,500, (2) $199,000; Boland Constr. Co., Troy, associated with J. McDermott, 436 State St., Schenectady, (1) $241,900, (3) $343,000; Tifft Constr. Co., Inc., Iroquois Bldg., Buffalo, (1) $243,000; Hanrahan Bros., 336 Bwine Ave., (2) $196,000, (3) $333,700. Noted Oct. 13.

CONTRACTS AWARDED

Mass., Roxbury—(Boston P. O.)—Courthouse—Dept. Bldgs., 1 story, 78 x 166 ft., brick and stone, Morton St. at Forest Hills, to Coblo & Griffin, 46 Cornhill, Boston, $211,000. Noted Oct. 27.

N. Y., Brooklyn — Apartment—Argyle Apartments Corp., c/o Cohn Bros., archts. and engrs., 361 Stone Ave., 4 story, brick steel and stone, plain foundation, Argyle Rd., by day labor. $210,000.

N. Y., Brooklyn — Hospital — Prospect Heights Hospital, 775 Washington Ave., 4 story, brick and stone addition, plain foundation, to W. P. Anderson, Forest Hills, $175,000.

N. Y., New York — Apartment—Alcas Realty Corp., c/o G. Nordham, archt. and engr., 18 West 34th St., 6 story, brick, steel and stone, plain foundation, Tremont Ave. and 178th St., by day labor. $750,000.

N. Y., New York—Apartment—Benson Realty Co., c/o C. Schaeffer, Jr., archt. and engr., 394 East 150th St., 5 story, 50 x 100 ft., brick, steel and stone, plain foundation, University Ave., by day labor. $200,000.

N. Y., New York—Apartment—M. Kaufman, c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, 90 x 100 ft., brick, steel and stone, plain foundation, 180th St. and Audubon Ave., by day labor. $250,000.

N. Y., New York — Apartment — One Twenty-Two East 51st St., Inc., c/o D. Barber, archt. and engr., 101 Park Ave., 9 story, brick and stone, plain foundation, 122 East 51st St., to Smith & Leo, 103 Park Ave., $200,000.

N. Y., New York—Apartments—A. J. Schwartzler, 369 East 167th St., two 5 story, brick, steel and stone, plain foundations, Tudor Pl. near Walton Ave., by day labor. $150,000 each. C. B. Call, 81 East 125th St., archt. and engr.

N. Y., New York—Apartment—F. Starkman, c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, 200 x 250 ft., brick, steel and stone, plain foundation, Stebbins Ave., by day labor $250,000.

N. Y., New York—Bank—Greenwich Savings Bank, 246 6th Ave., 1 story, brick, steel and stone, plain foundation, East 36th St., to M. Eidlitz, 33 East 42nd St. $200,000.

N. Y., New York—Office and Apartment—J. H. Scheier, 236 West 55th St., 6 story, 60 x 100 ft., brick, steel and stone, plain foundation, 241 West 54th St., by day labor. $250,000.

N. J., Atlantic City—Hotel—Shelburne Hotel Co., c/o Warren & Wetmore, archts. and engrs., 10 East 47th St., New York, altering and 8 story, 70 x 185 ft., brick, steel and stone addition, plain foundation, South Michigan Ave., here, to G. A. Fuller Co., Walnut St., Phila., $600,000.

N. J., East Orange—High School—Bd. Educ. 1 story, brick and stone, Winan St., to Salmond-Scrimshaw, 526 Elm St., Arlington, $200,000. Noted Oct. 6.

N. J., Newark—Infirmary—Eye and Ear Infirmary, 77 Central Ave., 4 story, brick, steel and stone addition, plain foundation, to E. M. Waldron Co., 27 Central Ave., $250,000.

N. J., Newark—Store—J. Hunt, archt. and engr., 30 North Michigan Ave., Chicago, 25 story, concrete, brick and steel addition, Market St., to G. A. Fuller Co., 949 Bway., New York, for L. Bamberger & Co. $2,000,000. Noted March 24.

Pa., Erie—Home—Dir. of Poor of Erie Co., 2 story, county home group, incl. administration, dining room, 2 cottages, power plant, storage and laundry buildings, to H. J. Conrath, Ariel Bldg. $350,000.

Pa., Homestead — Church—St. Anns Church, 1 story, 4th and Ann Sts., to Duquesne Constr. Co., Bessemer Bldg., Pittsburgh, $200,000. Noted May 12.

Pa., Phila. — Hospital—Methodist Hospital, Broad and Ritner Sts., 6 story, 90 x 123 ft., rein.-con., brick and steel, plain foundation, to Crampa & Co., Dencla Bldg., $300,000.

D. C., Washington—High School—Dist. Comrs., 509 Dist. Bldg., New Eastern High School, 3 story, to G. E. Wyne, Home Life Bldg., $959,700. Noted Nov. 3.

W. Va., Beckley—Hotel—Beckley Hotel Co., 4 story, 50 x 90 ft., brick and stone, to J. O. Freeman, Beckley. $150,000.

Ky., Anchorage—School—For 1 story, 55 x 104 ft. brick and stucco, Main St., to H. Frank, Anchorage, $250,000.

Ky., Pineville — Church—Presbyterian Church will build a 2 story, 60 x 105 ft., rein.-con. and brick, concrete pile foundation. $160,000. Work will be done by day labor under supervision L. C. Powers, Pineville. T. J. Nolan, 209 Courier-Journal Bldg., Louisville, archt.

Ky., Shelbyville—Hospital—Masonic Lodge, 1 story, 36 x 82 ft., rein.-con. and brick, concrete pile foundation, Main St., to T. F. Allen, Shelbyville, $240,000.

O., Dayton—Apartment—E. Woodward Co., 402 Mer. Lib., Cincinnati, 6 story, brick, rein.-con., stone and terra cotta, Far Hills Ave., here, to F. J. Hughes Co., 406 U. B. Bldg., $150,000. Noted Oct. 6.

Ind., New Albany—Gymnasium—New Albany Council 2 story, 70 x 100 ft., steel and brick, concrete pile foundation, 9th and Main Sts., to A. Day & Son, New Albany, $160,000.

Mich., Detroit—Church—North Woodward Ave. Methodist Episcopal Church, c/o C. B. Allen, 638 Hazelwood Ave., 2 story, rein.-con., brick and steel, plain foundation, Woodward Ave., mason work to Bryant & Detwiler, 2336 Dime Bank Bldg. Total $500,000. Noted Aug. 25.

Mich., Detroit—Office—M. Basso, 517 Free Press Bldg., 8 story, rein.-con., brick and steel, plain foundation, Woodward and Horton Aves., structural steel work, to Whitehead & Kales, Beecher Ave. and Michigan Central Ry. Total $200,000. Noted Nov. 3.

Mich., Flint—School—Bd. Educ., 2 story, rein.-con., brick, steel and stone, plain foundation, to W. E. Wood & Co., 1805 Ford Bldg., Detroit, $350,000. Noted Sept. 29.

Mich., Springwells — Bank — Springwells State Bank, 2 story, brick, steel and stone, plain foundation, Michigan Ave., structural steel, to Roura Iron Wks., 11700 Russell St. Total $150,000. Noted Oct. 13.

Ill., Champagne — Apartment—F. W. North & Co., Robinson Bldg., 5 story, rein.-con., brick and stone, to North-Raffin Constr. Co., 914 Chestnut St., Terre Haute, Ind., $250,000. Noted Nov. 3.

Ill., Champaign — Horticultural—Illinois State University, 1 and 2 story, 50 x 125 ft., rein.-con. and brick, to English Bros., Church and Randolph Sts., $200,000. Noted Aug. 25.

Ill., Chicago—Apartment—A. L. Himmelblau, 179 West Washington St., 3 story, 100 x 120 ft., rein.-con., brick and steel, 7620-28 East Lake Terrace, to Douglas Constr. Co., 3140 West 15th St., $175,000.

Ill., Chicago—Apartment—M. J. Goldstein, 3310 West Polk St., 3 story, 90 x 92 ft., rein.-con., brick and steel, 775-60 East Lake Terrace, to H. Entin, 2209 Cortez St., $150,000.

Ill., Chicago—School—Bd. Educ., 650 South Clark St., 3 story, 157 x 276 ft., rein.-con., brick and steel to S. Nelson, 3050 Augusta St., $600,000. Noted Sept. 8.

Ill., Chicago—School—Bd. Educ., 650 South Clark St., 3 story, 90 x 160 ft., rein.-con., brick and steel, 1727-39 Bellow Ave., to A. E. Anderson Co., 19 South La Salle St., $300,000.

Ill., Chicago — School—Bd. Educ., 650 Clark St., 3 story, rein.-con., brick and steel, 7336-52 Chapell Ave., to Carnegie Co., 189 West Madison St., $400,000.

Ill., Rockton—High School—Bd. Educ., 2 story, 114 x 162 ft., rein.-con., brick and stone, to R. P. Beckstrom, 208 Trust Bldg., Rockford, $150,000. Noted Oct. 20.

Ill., Sterling—School—Bd. Educ. 2 story, 80 x 200 ft., rein.-con., brick and stone, to Smith Bros., Sterling, $150,000. Noted Oct. 20.

Wis., Green Bay — Reformatory — State Bd. Control, Capitol Bldg., Madison, 2 story, 64 x 286 ft., steel and concrete, to Appleton Constr. Co., Odd Fellows Bldg., Appleton, $150,000.

Kan., Parsons—Hospital—Missouri, Kansas & Texas R.R., 3 story, brick and rein.-con., stone trim, to Collins Bros., Rialto Bldg., $155,602. Noted Oct. 20.

Mo., Mexico—Hotel Hoxsey Hotel Co., 5 story, 71 x 110 ft., rein.-con. and brick addition, by day labor under supervision of B. C. Elliott, archt., 116 Jefferson Ave. $200,000. Noted Oct. 20.

Mo., Springfield — High Schools — Bd. Educ., c/o E. Hoffman, secy., 3 story, 60 x 172 ft., brick and stone, by day labor. $175,000. Hawkins & Hoener, McDaniels Bldg., archts. Noted April 14.

Tex., Austin — Dormitory—Scottish Rite Assn., South Hardwood and Gabell Sts., Dallas, 3 story, 179 x 248 ft., rein.-con., brick, terra cotta and stone, at University of Texas, Whitis Ave. and 27th St., here, to H. M. Greene Co., c/o W. H. Folberg, Whitis Ave. and 27th St., $540,000.

Cal., Los Angeles—Schools—Bd. Educ., 2 and 1 story, 81 x 91 ft., 60 x 121 ft., and 60 x 107 ft. main building, cafeteria and manual training buildings, rein.-con., brick and stone, 60th and Vermont Sts., to Bavin & Burch, 173 East Jefferson St., $270,240. Noted Nov. 3.

Federal Government Work

PROPOSED WORK

Mass., Boston—Substation, etc.—Spec. 4550—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans substation and distribution system, at Naval drydock, here.

R. I., Newport—Dredging—Spec. 4552—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans dredging Goat Island, here.

N. Y., Brooklyn—Alterations—Spec. 4554—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans altering contagious disease buildings, here.

Federal **Government Work (Continued)**

Va., Norfolk — Dredging—Spec. 4553—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans dredging, here.

Fla., Key West—Distilling Plant—Spec. 4546—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans distilling plant, here.

BIDS DESIRED

Va., Norfolk—Refrigerating Plant, etc.—Dec. 2, Treas. Dept., Wash., D. C., electric elevators, sterilizers, hydro-therapeutic equipment, ice making and refrigerating plant in main hospital building, Tanner's Creek site, here. J. A. Wetmore, acting superv. archt.

Va., Yorktown—Water Supply System—Spec. 4514—Nov. 30, Bureau Yards & Docks, Navy Dept., Wash., D. C., water supply system, Naval Fuel Depot, here; adv. this issue. Noted Sept. 22.

O., Findlay—Mailing Vestibule, etc.—Nov. 25, Treas. Dept., Wash., D. C., mailing vestibule, new workroom, etc., in U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Mont., Savage — Structures — Dec. 29, U. S. Recl. Serv., structures on Main Canal, Main Canal Extension and Laterals on Lower Yellowstone Project, Montana-North Dakota. A. P. Davis, dir.; adv. this issue.

Tex., Galveston—Riprap and Breakwater —Dec. 1, Treas. Dept., Wash., D. C., riprap and pile breakwater, at U. S. Quarantine Station, here. J. A. Wetmore, acting superv. archt.

Col., Denver—Road—Dec. 1, by A. S. Peck, dist. forester, Federal Bldg., 13 mi. road from Echo Lake to Mt. Evans, Mt. Evans Natl. Forest west of here. $300,000.

Col., Denver—Valve—Dec. 28, by U. S. Recl. Serv., one 36 in. balanced needle valve for Shoshone Dam, Shoshone Project, Wyo. A. P. Davis, dir.; adv. this issue.

Wash., Walla Walla—Mechanical Equipment—Nov. 30 by Treas. Dept., Wash., D. C., mechanical equipment in U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt. Noted Oct. 13.

BIDS RECEIVED

Cal., Mare Island—Remodeling Barracks—Spec. 4489—Bureau Yards & Docks, Navy Dept., Wash., D. C., remodeling barracks, Building 53, Navy Yard Marine Reservation, here, (1) work complete from J. Pringle, 2364 22nd Ave., San Francisco, (1) $14,154 (2) $14,866 (3) $17,000, (100 days); G. A. Box, First Bldg., San Francisco, (1) $14,238 (2) $14,870 (3) $16,355 (100 days); Lange & Bergstrom, Sharon Bldg., San Francisco, (1) $14,900 (2) $15,150 (3) $16,200 (100 days). Noted Oct. 6.

CONTRACTS AWARDED

Mass., North Truro—Alterations and Additions—Spec. 4532—Bureau Yards & Docks, Navy Dept., Wash., D. C., at naval station, here, to McCarron & Shepard Co., Main St., Chatham, $1,550 (30 days). Noted Nov. 10.

W. Va., South Charleston—Electric Cable System—Spec. 4537—Bureau Yards & Docks, Navy Dept., Wash., D. C., electric cable system, at Naval Ordnance Plant, here, to Greenwood Eng. Co., 407 Stock Exch. Bldg., Phila., Pa., $82,022 (120 days). Noted Nov. 3.

Cal., San Diego—Foundations—Spec. 4528 —Bureau Yards & Docks, Navy Dept., Wash., D. C., concrete pile foundations for dispensary and post exchange building, at Marine Corps Base, to Ross Constr. Co., 935 Forum Bldg., Sacramento, $16,800 (85 days). Noted Oct. 6.

FEDERAL POWER COMMISSION

Application for licenses and permits.

Applications

255. Southern Sierra Power Co., c/o W. L. Huber, 1st Natl. Bank Bldg., San Francisco, Cal.—Wants license for 25 mi. transmission line from line of Southern Sierras Power Co. to Gold Mountain Mine.

256. M. Terzich, Sonora, Cal.—Wants license to divert Eagle Creek through flume to small power wheel in Stanislaus Natl. Forest, Cal., to develop 8 hp.

BOULEVARD—LONG ISLAND CITY, N. Y.

Bids were reecived (lowest 3) by M. E. Connolly, pres., Queens Boro., Oct. 18, for improving Jamaica Bay Blvd., from (A) Smith, Hauser & MacIsaacs, Inc., 18 East 41st St. (awarded contract): (B) Raymond Concrete Pile Co., 90 West St., (C) G. Colon & Co., 81 East 125th St. Contractors all of New York City. The unit bids were as follows:

	A	B	C
14,300 cu.yd. concrete sidewalks, etc.	$24.20	$16.50	$20.00
14,980 cu.yd. concrete in beams	25.25	19.85	25.00
4,500 cu.yd. concrete in abutments	24.05	31.50	28.30
1,060 cu.yd. concrete in railroad area	13.75	10.30	30.00
1,190 cu.yd. concrete in pile bracing	37.25	34.20	40.00
132,000 lin. ft. 24 in. concrete piles	5.35	9.00	3.00
181,000 lin. ft. 18 in. concrete piles	3.69	5.24	2.50
191,000 lin. ft. 18 in. concrete piles	3.83	5.24	5.00
1,120 cu.yd. concrete sidewalks	28.40	21.10	40.00
750 cu.yd. concrete fence	90.50	34.30	50.00
4,500 tons steel (reinforcing)	90.30	82.30	109.00
385 tons steel (structural)	229.90	169.00	100.00
27 tons steel (tie rods)	148.85	125.00	300.00
119 tons c. i. rockers	329.50	135.00	300.00
175 cu.yd. broken stone	5.45	5.00	10.00
17,000 ft. b. m. timber platform	127.00	120.00	250.00
12,200 ft. b. m. creosoted timber	213.35	164.00	200.00
8,400 ft. b. m. creosoted timber	171.20	200.00	225.00
299,200 ft. b. m. creosoted timber	119.30	150.00	130.00
76 inlet basins	30.00	40.00	300.00
675 c. i. strainers	.40	.25	1.00
400 lin. ft. vitrified pipe	.48	.40	10.25
135 cu.yd. concrete in abutments	21.20	30.00	38.00
24,800 lin. ft. creosoted piles	1.02	1.15	2.00
9,600 lin. ft. creosoted piles	1.11	1.20	2.50
3,200 lin. ft. creosoted fender piles	1.16	1.00	2.00
16,500 ft. untreated spruce piles	.72	.89	1.50
Extended totals	$2,869,298	$2,901,172	$3,112,934

257. J. G. Galvin, c/o M. D. Leehey, 620 Alaska Bldg., Seattle, Wash.—Wants permit to develop power on Aarons Creek, at head of Blake Channel, on mainland east of Wrangell Island and 22.5 mi. from Wrangell, Alaska. Project includes, dam 100 ft. high, conduit and power house.

258. Southern California Edison Co., Edison Bldg., Los Angeles, Cal.—Wants permit for dam and power house at Boulder Canyon, and at Pyramid Canyon, in Colorado River, Mohave Co., Ariz., and Clark Co., Nev.

259. Ft. Klamath Meadows Co., Klamath Falls, Ore.—Wants permit to develop power, here. Project includes pipe-line, flume and ditch to generating plant, Fort Klamath Meadows, Klamath Co., Ore.

260. San Joaquin Light and Power Co., 740 Broadway, Los Angeles, Cal.—Wants permit to develop power on main stream of South Fork of Merced River, Mariposa Co., Cal. Project includes large reservoir, 3 conduits, 2 diversion dams, 3 power houses and 1 dam.

Miscellaneous

PROPOSED WORK

Parks, etc.—Winston-Salem, N. C.—Voted $100,000 bonds for parks and playgrounds. J. G. Haynes, mayor. Noted Sept. 22.

Pier, etc. — Norfolk, Va. — Election in January to vote on $3,800,000 bonds for following work, pier and sheds, 500,000 sq.ft. warehouse space, $2,550,000, two open pier berths, $360,000, grain elevator, 750,000 bu. capacity, $650,000, berth serving grain elevator, $250,000. J. C. Rue, city engr.

Jetties—Ft. Lauderdale, Fla.—Plans two 300 ft. jetties into Atlantic, with 12-14 ft. channel, 200 ft. wide, 25,000 cu.yd. sand excav. $80,000. J. Hinton, chn. Chamber Commerce, in charge H. Loennecke and assistants, c/o Seaboard Dredging Co., Durkee Bldg., Jacksonville, engrs.

Docks, Warehouses, etc.—Miami, Fla.—Voted $300,000 bonds for 2 docks, 2 warehouses and railway tracks, etc., 100,000 cu.yd. excav. C. W. Murray, city engr.

Shed — New Orleans, La. — Bd. Port Cmrs. having plans prepared and soon takes bids for new galvanized iron shed, Congress St., also ratproofing approaches. $50,000. H. M. Gallagher, ch. engr.

Stadium — Nashville, Tenn. — Vanderbilt University with aid of Alumni Assn. and Nashville Chamber of Commerce plan stadium for athletic field. $150,000. J. H. Kirkland, chancellor of University. Engineer not selected.

Signal System, etc.—Dayton, O.—Plans new cables and boxes for fire and police signal system, also brick building to house switchboards. $200,000. F. E. Eichelberger, city mgr.

Grain Elevator—Perdueville (Paxton P. O.), Ill.—Carson Elevator Co. plans rein.-con. grain elevator, 50,000 bu. capacity. $40,000. J. A. Kemp, mgr. Architect not selected.

Derricks, etc. — Detroit, Mich. — J. S. Whitcomb Constr. Co., 525 Woodward Ave., in market for derricks with boom turning attachment, three-drum hoisting engine, one ¾ yd. heavy duty clamshell, one 4 in. centrifugal pump and steel sheet piling.

Greenhouse—Burlington, Ia.—Bock Nursery, Sunnyside Ave., making plans 130 x 240 ft. glass and steel greenhouse. $30,000. H. Bock, mgr. Private plans.

Dock—Osceola, Mo.—Osage Resort Co. plans dock and boat house, on Osage River. $50,000. G. E. Linn, mgr. Engineer not selected.

Hog Barn—Sedalia, Mo.—State Fair Bd., c/o E. G. Bylander, secy., Sedalia, having plans prepared by T. W. Bast, archt., Sedalia, 1 story, on fair grounds. $250,000. G. O. Stanley, Sedalia, engr. Noted Sept. 22.

Lighting System—Brodhagen, Ont.—Plans extension of power line, from here to Dublin, $30,000. Address J. Jordan, Dublin.

Incinerator—Chatham, Ont.—Voted $50,000 bonds for incinerator. Prices wanted on all materials. Noted Nov. 3.

Electric Lighting and Power System—Dutton, Ont.—Dunwich Twp. plans electric lighting and power distribution system. $50,000. J. N. Wilson, 90 University Ave., Toronto, engr.

Ornamental Lighting System — London, Ont. — Utilities Comrs., plan ornamental street lighting system. $60,000. E. V. Buchanan, Hydro Bldg., engr. Prices wanted on posts, lamps and general equipment.

BIDS DESIRED

Heating and Plumbing System—Rochester, N. Y.—Nov. 30, by C. L. Cadle, supt. Pub. Wks., Capitol, Albany, heating system in terminal, Contr. 230 H; plumbing system, Contr. 230 P.

Ornamental Lights—Long Branch, N. J. —Nov. 29, by Bd. City Comrs., City Hall, ornamental lights on certain streets. E. F. Lawyer, city clk.; adv. this issue.

Snow Loader — Philadelphia, Pa.—Nov. 22, by F. H. Caven, dir. Pub. Wks., power snow loader, 32 in. wide, convey with snow plow, gas engine driven, 25 hp. F. C. Dunlap, City Hall, engr.

Coal Trestle—Orient, O.—Nov. 23, by Dept. Pub. Welfare, Oak and 9th Sts., Columbus, coal trestle and railroad siding, at Institution for Feeble Minded, here. $30,000. H. M. Seabright, engr.

Miscellaneous (Continued)

Ornamental Lighting System—Oshkosh, Wis.—Nov. 21, by W. F. Porath, chn. Bd. Pub. Wks., ornamental lighting system on down town streets. $60,000. W. A. Baehr, 122 South Michigan Ave., Chicago, engr. Noted Dec. 9.

Caterpillar Tractor — Virginia, Minn.—Nov. 22, by city, one 5 ton caterpillar tractor with combination sidewalk and street snow plow attachments. E. F. Johnson, city engr.

Tunnel—Houston, Tex.—City and Southern Pacific Ry., Southern Pacific Bldg., receiving bids tunnel on Main St. $250,000. J. C. McVea, City Hall, engr.

BIDS RECEIVED

Asphaltic Cement, etc.—New York, N. Y.—H. Bruckner, pres. Bronx Boro, Municipal Bldg., opened bids Nov. 10, furnishing and delivering 300 ton asphaltic cement, from New York Trap Rock Corp., 101 Park Ave., $5,055; 1,000 cu.yd. 1½ in. and 500 cuyd. ¾ in. broken trap rock stone, from Barrett Co., 17 Battery Pl., $26.82 per ton, total $670; 25 ton paving pitch, from Warner Quinlan Co., 79 Wall St., $27.75. $8,325. Noted Nov. 3.

Grade Separation—Dearborn, Mich.—For grade separation to carry Telegraph Rd. under Michigan Central R.R. tracks, from G. F. Bristol, 119 Winona Ave., Highland Park, $47,491; Worswick Bros., 410 Hodgens Bldg., Detroit, $49,491; R. I. Oakley, 521 Detroit Savings Bank Bldg., Detroit, $50,639. Noted Oct. 13.

CONTRACTS AWARDED

Lamp Posts—North Bergen (Weehawken P. O.), N. J.—Hudson Co. Blvd. Comn., Jersey City, 132 lamp posts on 3 mi. Hudson Blvd., to W. Coleman, 29 Willow Court, Jersey City, $15,000. Noted Nov. 3.

Wheels and generators—Charlotte, N. C.—Southern Power Co., c/o W. S. Lee, vice-pres. and ch. engr., 511-5th Ave., New York, wheels and generators for addition to present plant at Great Falls, S. C., known as Great Falls Power House 2, 3 units, each 18,750 kva. capacity, also new installation at point 12 mi. from here, known as Mountain Island Station, four 18,750 kva. units, wheels to S. Morgan Smith Co., York, Pa., generators to Allis Chalmers Co., West Allis St., Milwaukee, Wis.

Paving Blocks—Detroit, Mich.—Street Ry. Comn., Murphy Bldg., 630,000 paving blocks to F. B. Holmes Co., 697 York St., $36.80 per M. Noted Nov. 10.

Subway — Detroit, Mich. — For subway and approaches at Military Ave. under New York Central R.R. and Wabash R.R. tracks, to W. E. Lennane, 2631 Woodward Ave., $110,984. Noted Nov. 3.

Flood Protection Works, etc.—Whiting, Kan.—Straight Creek, D. D., c/o C. E. Schrader, secy., shortening and straightening stream, 4,000 acres, to W. M. Spencer, Spring Branch Rd., Independence, Mo., $36,000. Noted Oct. 6.

Foundation, etc. — Minneapolis, Minn.—Asbury Hospital Assn., c/o R. W. Leach, member bd. trustees, 1224 First Natl.-Soo Line Bldg., excavation, foundation and first floor slab, for 3 story, 48 x 280 ft., rein.-con., stone and brick addition to hospital and nurses' home, at 914 Elliot Ave., to J. Leck Co., 316 South 7th St., $30,000. Bids on superstructure later. Noted Feb. 24 under Buildings.

Oil Storage Tanks—Healdton, Okla.—clair Crude Oil Purchasing Co., Tulsa, and New York, fabrication and erection eleven. $80,000 bbl. oil storage tanks, to Phoenix Iron Wks. Co., Meadville, Pa.

Oil Storage Tanks — Healdton, Okla.—Sinclair Crude Oil Purchasing Co., Tulsa and New York, fabrication and erection four $55,000 bbl. oil storage tanks, to Phoenix Iron Wks. Co., Meadville, Pa.

Bulkheads—Portland, Ore.—Inman Poulson Lumber Co., foot of East Caruthers St., bulkheads and shipping wharves by day labor. $90,000. H. L. Gilbert, Couch Bldg., engr.

Electric Power and Lighting System—St. Thomas, Ont.—Yarmouth Twp., building hydro electric system for power and lighting, in Union, Sparta and Glanworth, to Ontario Hydro Comn., University Ave., Toronto, $115,000.

Our Correspondents

are picked men. Applications are continually being received from all parts of the United States and Canada, and from these the best are accepted. Some of our Construction News correspondents have been with us for years, and one or two new ones are "put on" every week. One of our biggest jobs is the upkeep of our Correspondent Staff.

It ought to be thoroughly understood by engineers, contractors, material men, and by all others who make constant use of these pages, that

every item we publish is verified

This essential fact cannot be too positively stated, because *Engineering News-Record* is spending much money and more effort to keep these pages as clear as possible of error and to render its readers

a reliable business-getting service

Our correspondents are not lightly selected. Before appointing a new man we send him a set of printed instructions and sample blanks and advise him to digest this literature thoroughly before writing us again. Those who stand this test, who after studying the job before them still believe they are sufficiently qualified to serve us, are promptly put to work.

Every report sent in by a correspondent gives the source of his information, and as much detail as may be available. If in the opinion of our office force there is the slightest question as to authenticity, or if essential details are omitted, the report is returned with a notation on the back of it. We are in continual communication with our correspondents, and they are imbued with the spirit of

our two watchwords—accuracy and timeliness

When an important item of business information is both accurate and timely it has another quality which embraces the two just named, and it is this third and comprehensive quality which we aim to achieve in these pages—

Usefulness

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Nov. 28	St. Paul, Minn.	Nov. 24
Nov. 29	Elgin, Kan.	Nov. 24
Dec. 1	Decatur, Tex.	Nov. 10
Dec. 1	Cleveland O.	Nov. 10
Dec. 2	West Park, O.	Nov. 24
Dec. 2	Cleveland, O.	Nov. 24
Dec. 5	Syracuse, N. Y. Adv. Nov. 24	Nov. 24
Dec. 5	Buffalo, N. Y.	Nov. 24
Dec. 16	Cleveland, O. Adv. Nov. 24	Nov. 24

SEWERS

Nov. 28	Winona, Minn.	Nov. 17
Nov. 28	Benton, Ill.	Nov. 17
Nov. 29	Spokane, Wash.	Nov. 17
Nov. 29	Newark, N. J.	Oct. 27
Nov. 29	Florence, Kan.	Nov. 24
Nov. 29	Des Moines, Ia.	Nov. 24
Dec. 1	Salt Lake City, Utah	Nov. 17
Dec. 1	Richmond, Va. Adv. Nov. 17 and 24.	Nov. 24
Dec. 1	Brooklyn, N. Y.	Nov. 24
Dec. 5	Columbia, Mo. Adv. Nov. 17 and 24.	Nov. 24
Dec. 6	Rutherford, N. J.	Nov. 24
Dec. 13	Harrison, N. J.	Nov. 17
Dec. 20	Passaic, N. J.	Nov. 24

BRIDGES

Nov. 29	Shadesville, O.	Nov. 3
Nov. 29	Maryland	Nov. 17
Nov. 29	North Carolina	Nov. 17
Nov. 29	Yankton, S. D.	Nov. 24
Dec. 2	West Virginia Adv. Nov. 17 and 24.	Nov. 17
Dec. 2	New Ulm, Minn.	Nov. 24
Dec. 6	Del Rio, Tex	Nov. 24
Dec. 8	Morgantown, W. Va. Adv. Nov. 17 and 24.	Nov. 17
Dec. 9	North Carolina	Nov. 24
Dec. 10	Madison, W. Va. Adv. Nov. 17 and 24.	Nov. 17
Dec. 13	Phila., Pa.	Nov. 17
Dec. 19	Phila., Pa.	Nov. 17

DAMS

Dec. 17	Phoenix, Ariz.	Nov. 17

EXCAVATION AND DREDGING

Dec. 3	Mantorville, Kan.	Nov. 24
Dec. 5	Yankton S. D.	Nov. 17
Dec. 6	Duluth, Minn.	Nov. 24
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Bids Close		See Eng. News-Record
Nov. 28	Cleveland, O.	Nov. 10
Nov. 28	California	Nov. 17
Nov. 28	New York, N. Y.	Nov. 24
Nov. 28	Los Angeles, Cal.	Nov. 24
Nov. 29	Wilmington, N. C.	Nov. 10
Nov. 29	Alabama	Nov. 10
Nov. 29	Vermont Adv. Nov. 17 and 24.	Nov. 17
Nov. 29	Minnesota	Nov. 17
Nov. 29	Salt Lake City, Utah.	Nov. 24
Nov. 29	Denison, Tex.	Nov. 24
Nov. 29	Devils Lake	Nov. 24
Nov. 30	St. George, S. I.	Nov. 24
Nov. 30	Minnesota	Nov. 17
Dec. 1	Woodbury, N. J. Adv. Nov. 17 and 24.	Nov. 17
Dec. 1	Brooklyn, N. Y.	Nov. 24
Dec. 1	Melbourne, Fla.	Nov. 24
Dec. 1	Eastland, Tex.	Nov. 24
Dec. 2	Alabama	Nov. 10
Dec. 2	Minnesota	Nov. 24
Dec. 2	Buffalo, Neb.	Nov. 24
Dec. 5	California	Nov. 24
Dec. 5	Santa Barbara, Cal.	Nov. 24
Dec. 5	Greenville, Tex.	Nov. 24
Dec. 6	Gastonia, N. C. Adv. Nov. 17 and 24.	Nov. 17
Dec. 6	Del Rio, Tex.	Nov. 24
Dec. 6	Calexico, Cal.	Nov. 24
Dec. 7	Ventura, Cal.	Nov. 24
Dec. 7	Salina, Kan.	Nov. 3
Dec. 9	Minnesota	Nov. 24
Dec. 13	Morton, Wash.	Nov. 17
Dec. 13	Atchinson, Kan.	Nov. 17
Dec. 13	Dunedin, Fla.	Nov. 24
Dec. 16	West Virginia, Adv. Nov. 24	Nov. 24
Dec. 19	Elmhurst, Ill.	Nov. 17
Dec. 20	Kansas City, Kan.	Nov. 17
Dec. 21	Little Falls, Minn.	Nov. 24
Dec. 23	Iola Kan.	Nov. 24

INDUSTRIAL WORKS

Nov. 29	West Chicago, Ill.	Nov. 24
Nov. 29	St. Louis, Mo.	Nov. 24
Nov. 29	Rock Island, Ill.	Nov. 24
Dec. 1	Charlotte, N. C.	Nov. 17
Dec. 1	Phila., Pa.	Nov. 17
Jan. 1	Cumberland, Wis.	Nov. 17
Dec 2	Minneapolis, Minn.	Nov. 24

BUILDINGS

Nov. 29	Dayton, O.	Nov. 17
Nov. 29	Amboy, Ill.	Nov. 24
Dec. 1	Detroit, Mich.	Nov. 17
Dec. 1	McCook, Neb.	Nov. 24
Dec. 2	Elizabeth, N. J.	Nov. 17
Dec. 2	Dayton, O.	Nov. 17
Dec. 5	Kerrville, Tex.	Nov. 24
Dec. 5	Palmyra, N. J.	Nov. 10
Dec. 5	Kalamazoo, Mich.	Nov. 24
Dec. 6	Thiells, N. Y. Adv. Nov. 17 and 24.	Nov. 17
Dec. 6	Glassboro, N. J.	Nov. 24
Dec. 6	Detroit, Mich.	Nov. 24
Dec. 7	Saginaw, Mich.	Nov. 17
Dec. 9	Minneapolis, Minn.	Nov. 24
Dec. 10	Gainesville, Fla.	Nov. 10
Dec. 12	Tallahassee, Fla.	Nov. 17
Dec. 12	Kalamazoo, Mich.	Nov. 24
Dec. 14	Huron, S. D.	Nov. 17
Dec. 15	Dayton, O.	Nov. 17
Dec. 15	Lawrence, Mass.	Nov. 17
Dec. 15	Independence, Kan.	Nov. 24
Dec. 15	Castalia, O.	Nov. 24
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Dec. 23	Eldorado, Kan.	Nov. 24
Jan. 1	Detroit, Mich.	Nov. 17
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Nov. 28	Dredging—Baltimore, Md. Adv. Nov. 3 to 24.	Nov. 3
Nov. 29	Home—Dayton, O.	Nov. 24
Nov. 30	Dredging—Savannah, Ga. Adv. Nov. 3 to 24.	Nov. 3
Nov. 30	Mechanical Equipment — Walla Walla, Wash.	Nov. 17
Nov. 30	Water Supply System—Yorktown, Va. Adv. Nov. 17 and 24.	Nov. 17
Nov. 30	Ovens—Mare Island, Cal.	Nov. 24
Dec. 1	Riprap and Breakwater — Galveston, Tex.	Nov. 17
Dec. 1	Road—Denver Col.	Nov. 17
Dec. 2	Refrigerating Plant, etc. — Norfolk, Va.	Nov. 17
Dec. 5	Loading Shed, etc—Brunswick, N. J.	Nov. 24
Dec. 6	Changes to Services, etc—Oteen, N. C. Adv. Nov. 24	Nov. 24
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6
Dec. 7	Dredging—Norfolk, Va. Adv. Nov. 24	Nov. 24
Dec. 13	Alterations — Columbia, S. C. Adv. Nov. 24	Nov. 24
Dec. 28	Valve—Denver, Col.	Nov. 17
Dec. 29	Structures—Savage, Mont.	Nov. 17

MISCELLANEOUS

Nov. 28	Dike—Revere, Mass.	Nov. 3
Nov. 28	Piles—Portland, Me.	Nov. 3
Nov. 29	Ornamental Lights — Long Branch, N. J. Adv. Nov. 17 and 24.	Nov. 17
Nov. 29	Supplies—Toronto—Ont.	Nov. 24
Nov. 30	Stadium—Chicago, Ill.	Oct. 20
Nov. 30	Heating and Plumbing System —Rochester, N. Y.	Nov. 17
Nov. 30	Binder Stone, etc — New York, N. Y.	Nov. 24
Dec. 1	Foundation—Chicago, Ill.	Nov. 10
Dec. 5	Enclosures — Brooklyn, N. Y.	Nov. 24
Dec. 20	Electric Wiring, etc—Brooklyn, N. Y. Adv. Nov. 24	Nov. 24
Dec. 23	Oil Tanks and Boilers—New Orleans, La. Adv. Nov. 3 to 24	Nov. 3

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

O., Kingston—Defeated $100,000 bonds for new water works and disposal plant.

Ia., Modale—Voted $14,300 bonds waterworks, incl. well pump and 6,000 ft. c.i. mains. C. L. Huff, Logan, engr.

Kan., Sabetha—Voted $60,000 bonds to develop springs as source of supply. Black & Veatch, Interstate Bldg., Kansas City, Mo., engrs.

S. D., Groton—Plans standpipe, extending and relaying mains, etc. $30,000 bonds voted. R. F. Mohr, clk. Engineer not announced.

Mo., Ash Grove—Plans waterworks. $40,000. Engineer not selected.

N. H., Bennington — Monadnock Paper Mills, concrete storage dam, to Aberthaw Constr. Co., 27 School St., Boston, Mass. $15,000.

Idaho, Post Falls—Post Falls Irrigation Dist. plans supply line, 27,320 lin.ft. 14-42 in. wood stave pipe. $150,000. Engineer not seected.

Utah, Circleville—Making plans for waterworks, distributing system, hydrants, valves, etc. $40,000. Caldwell & Richards, Templeton Bldg., Salt Lake City, engrs. Noted Nov. 10.

Que., Hull—See "Streets and Roads."

Ore., Grants Pass — Plans pumping plant and distribution system to irrigate 800 acres. $25,000. G. Stubblefield, Grants Pass, engr.

Que., Montreal—Plans laying 9,240 ft. 12 in. mains from Cremazie to Decarie Blvds. $80,000. F. V. Dowd, City Hall, engr.

Ont., Petrolea—Having plans prepared for reservoir and electrical centrifugal pumps. $42,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs.

BIDS DESIRED

N. Y., Buffalo—Dec. 5, by Dept. Pub. Wks., 2 sets of power transformers in Massachusetts Ave. pumping station and Lakeview Ave. storehouse. A. W. Kreinheder, comnr.

N. Y., Syracuse—Dec. 5 (change of date), by Bd. Contr. & Supply, City Hall, c.i. pipe and specials or steel pipe and specials, gate valves and laying 36 in. c.i. pipe. R. D. Rodney, secy. This gives correct date on this project which was noted twice in Nov. 17 issue; adv. this issue. Noted Nov. 17.

O., Cleveland—Dec. 2, furnishing 75 gal. per minute pressure booster pump. G. B. Gascoygne, City Hall, engr.

O., Cleveland—Dec. 16, by Commissioner of Purchases & Supplies, City Hall, underpinning filters and pipe vault at Division pumping station; adv. this issue.

O., West Park—Dec. 2, mains in Banner, Sherry, Holmes, Harold, Terminal, Summerset, Garfield, Liberty and Emery Aves., Bellaire, Victory and Brookside Blvds., West 131st, West 132nd, West 134th, West 137th, West 138th and West 139th Sts. $50,000. J. Reitz, City Hall, engr.

Kan., Anthony—Nov. 29 (change of date), one 150 hp. water tube boiler, one 300 k.w. steam engine generating unit, one jet condenser and one 100 ft. chimney. $30,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs. Noted Nov. 3.

Kan., Elgin—Nov. 29, for 50,000 gal. tank and tower and pumping station. $35,000. Alexander & Baity, Woodruff Bldg., Springfield, Mo., engrs.

Minn., St. Paul—Nov. 28, by H. W. Austin, city purch. agt., 2,400 inverted key curb stops, 150 brass gate valves, 2,240 corporation cocks, 185 goosenecks and 925 fibre washers for Water Dept. O. Claussen, city engr.

BIDS RECEIVED

N. Y., Brooklyn—N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, opened bids Nov. 12, mains and appurtenances in Surf Ave., Kings Highway, 75th and 78th Sts., here, from J. A. Gregory, 351 East 124th St., New York $71,502; F. L. Paino, Woodhaven, $74,137; Paladino Contg. Co., 2254 1st Ave, New York, $74,455. Noted Nov. 3.

Waterworks (Continued)

CONTRACTS AWARDED

Pa., Harrisburg—For 2 15,000,000 gal. pumps, boilers and boiler house, to J. H. Wickersham, Brennan Bldg. Lancaster, $243,622. Noted Oct. 27.

Md., Cumberland—For 1 story, 20 x 30 ft. pumping station, to Vang Constr. Co., 21 3rd. Natl. Bank Bldg., $46,000.

O., Akron—Summit Co. laying 6 mi. 4-8 in. c.i. pipe in Dist. 5, 3 mi. to W. H. Crumm, Akron, $25,000; 3 mi. to J. B. Dorris, 320 Metropolitan Bldg., $21,000.

O., Cleveland—Concrete covered reservoir, to Stange & Walsh Constr. Co., 9th Garage Bldg., $1,824,125. Noted Nov. 17.

Mich., Lincoln Park (Wyandotte P. O.)—For 80,000 ft. 6, 8, 10 and 12 in. c.i. pipe, to Oakwood Constr. Co., 165 Fort Blvd., Detroit, $125,000.

Minn., St. Paul—For 95 ton straight reinforcing steel for Water Dept., to Corrugated Bar Co., Inc., 710 Pioneer Bldg., $7,201 on cars.

Kan., Parsons — Removing present c. i. force line and constructing new supply line from Neodosha River, trenching to F. M. Sheflow, Elgin, Ill., $74,838; pipe to Amer. Cast Iron Pipe Co., Scarritt Bldg., Kansas City, Mo., $127,201; valves and hydrants to Ludlow Valve Mfg. Co., R. A. Long Bldg., Kansas City, Mo., $4,543. Noted Nov. 3.

S. D., Mobridge—For steel tank, 35,000 gal. capacity, to Pittsburgh-Des Moines Steel Co., Tuttle and 10th Sts., Des Moines, Ia., $16,785.

Neb., Lincoln—T. H. Berg, city clk., excavating and laying 9,815 ft. 8 in. and 1,280 ft. 6 in. c. i. mains and placing 22 hydrants and 38 valves in Dist. 11 on South St. from 29th to 60th Sts., to A. A. Dobson & Co., 809 1st Natl. Bank Bldg., $19,975; furnishing and erecting 2 500 hp. horizontal water-tube boilers, to Murray Iron Wks., 880 Washington St., Burlington Ia., $20,330; 1 pivoted bucket elevator conveyor, 1 30-in. apron conveyor, 1 coal crusher, 1 traveling weigh larry, to Jeffery Mfg. Co., East 1st Ave., Columbus, O., $18,650. Noted Nov. 3, under Miscellaneous.

Idaho, Post Falls—Waterworks, incl. 2-8 in. steel pipe, multiple stage centrifugal pump, etc., to Standard Asphalt Paving Co., North 517 Lincoln St., Spokane, Wash., $41,231.

Tex., Dallas — Pumping equipment for White Rock filtration plant, to A. M. Lockett, 521 Baronne St., New Orleans, La., $28,691. Noted Oct. 13.

Ont., Georgetown—Waterworks pumping plant, to Goldie & McCullough, Galt, $9,384. Noted Sept. 15.

Sewers

PROPOSED WORK

Conn., Manchester—Plans vitr. sewers in portions School, Oakland and Union Sts. $35,000. C. H. Olmstead, East Hartford, engr.

Ky., Paducah — Voted $600,000 bonds, trunk line sewers. This, along with laterals to be paid for by individual property owners, will make $1,200,000 worth of sewer construction during next 2 years. H. A. Pulliam, City Natl. Bank Bldg., engr.

O., Cleveland—Plans sewers in Amesbury Ave. from East 93rd St. to west line of Sharp allotment, Arcade Ave. from East 156th to East 167th Sts., Aspinwall Ave. extension to Nine Mile Creek, Bessemer Ave. from East 79th to East 88th Sts., Biddulph Rd. outlet sewer, Booth Ave. from East 89th St. to East 93rd Sts., Breakwater Ave. from West 58th to West 65th Sts., Britton Dr. from East 124th to East 127th Sts., Bway. from Forman Ave. to East 71st St., Broadview Rd. from old city limits to Oakpark Ave. and Carnegie Ave. from East 40th to East 55th Sts. $150,000. R. Hoffman, City Hall, engr.

O., Cleveland—Plans sewers in Cleveland Rd., Cedar, Crane and Denison Aves., East 35th, East 82nd, East 88th, East 97th, East 102nd and East 105th Sts. $150,000. R. Hoffman, City Hall, engr.

O., Cleveland—Soon takes bids furnishing 2 ton overhead crane for sewage treatment plant. G. B. Gascoygne, City Hall, engr.

O., Columbus—Plans sanitary sewers in Torrence Rd., Milton Ave., High St., Montrose Way, Dunedin Rd. from Northmore Pl. to alley west of High St., Olentangy Blvd. from Orchard Lane to north corporation line of Winthrop Rd., and various other streets and boulevards. $40,000. R. H. Simpson, city engr.

Mich., Birmingham—Plans 8,000 ft. 6, 8 and 12 in. vitr. crock sanitary sewers. H. H. Barnette, Dawson Blk., Pontiac, engr.

Ill., White Hall—Plans storm sewers. $150,000. R. F. Ballard, clk. Engineer not selected.

Wis., Kewaskum—Making plans for sanitary and storm sewers and disposal plant. $35,000. J. Donohue, 606 North 8th St., Sheboygan, engr.

Que., Hull—See "Streets and Roads."

BIDS DESIRED

N. Y., Brooklyn—Dec. 1, by E. Riegelmann, boro pres., Boro Hall, storm and sanitary sewers in Ave. S, from Ocean Parkway to Coney Island Ave., outlet storm and outlet sanitary sewers in Ocean Parkway, easterly side from Ave. S to Ave. U, Fenimore St. between Albany and Troy Aves. and Troy Ave. between Fenimore St. and Rutland Rd., 64th St. between 17th and 18th Aves., Ft. Hamilton Parkway, west side, between 41st and 42nd Sts.

N. J., Passaic—Dec. 20, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, central portion of Sect. 19, Sta. 24 plus 42 to Sta. 41 plus 00, Garfield Wallington-Passaic Branch Intercepting Sewer, here, 1,100 lin.ft. earth excav. and refilling, in trench, for 48 in. concrete sewer, 558 lin.ft. earth excav. and refilling, in trench, for 42 in. concrete sewer, 1,000 cu. yd. concrete masonry, etc. J. R. Van Duyne, ch. engr.

N. J., Rutherford—Dec. 6, by Passaic Valley Sewerage Comrs., 128 Market St., Newark, Sect. 25, Rutherford-Union Branch Intercepting Sewer, Lyndhurst Twp., here. Former bids rejected. J. R. Van Duyne, ch. engr. Noted Oct. 20.

Va., Richmond—Dec. 1, at office of A. J. Saville, dir. Pub. Wks., pipe sewers in various streets; adv. this issue.

Fla., Dunedin—See "Streets and Roads."

Ia., Des Moines—Nov. 29, 10 in. vitr. clay. sewers in various streets. $28,000. J. M. Tippee, City Hall, engr.

Kan., Florence—Nov. 29, laying 30 in. sewers. $28,000. J. C. Riggs, clk. F. E. Delvin, Eldorado, engr.

Mo., Columbia—Dec. 5, 8-15 in. sewers and disposal plant. E. J. McCaustland, 103 Engineering Bldg., consult. engr.; adv. this issue.

BIDS RECEIVED

Wash., Seattle—Sewers in East 70th St., et al., 14,525 lin. ft. 8-24 in. clay or concrete pipe, (a) clay, (b) concrete, from Fiorito Bros., Thompson Blk., (a) $52,337, (b) $49,837; C. A. Schram, Thompson Blk., (a) $52,950, (b) $48,101; A. Tocco & Co., Thompson Blk., (a) $53,768, (b) $53,765.

Cal., Glendale—Sewers in Brand Blvd. and Bway., from B. D. Zaich, 220 West 56th St., Los Angeles, $25,378 J. Sutalo, 476 Camulos St., Los Angeles $27,934; P. Tomich, Los Angeles, $28,388. Noted Oct. 13.

CONTRACTS AWARDED

O., Cleveland—Sewer in Amesbury Ave. and East 51st St., to S. Amato, 343 The Arcade, $9,748; Fairmount Rd., to Iafornaro Constr. Co., 2218 Murray Hill Rd., $17,701. Work involves 270 ft. concrete and 14,000 ft. 12-20 in. vitr. pipe.

Wis., Valders—Storm and sanitary sewers, to W. O. Bahr, 8th St., Manitowoc, $25,000. Noted Sept. 2.

Ia., Dubuque—For 845 ft. 60 in., 566 ft. 54 in. and 652 ft. 36 in. storm sewers in Jackson St., to Even-Ulrich-Stauer Co., Dubuque, $34,458.

Minn., Rochester—For sanitary sewers in Sects. 1, 2 and 3, to Mankato Constr. Co., Mankato, $42,000; Sects. 4, 5, 6 and 7, to W. C. Fraser, 810 Guardian Life Bldg., St. Paul, $26,000. Noted Nov. 3.

Mo., Joplin—Septic and Imhoff tanks, near tracks of Kansas City Southern Ry., by day labor. $30,000. S. Ashcraft, city engr.

Cal., Pasadena—Sewers in Mountain St. and other streets in Pasadena Heights, to Mlagenovich & Gillespie, 1029½ West 36th St., Los Angeles, $50,900. Noted Nov. 17.

Bridges

PROPOSED WORK

Kan., Topeka—Shawnee Co. had plans prepared 2 bridges, one 100 ft. arch span or rainbow design, other 120 ft. arch span. A. C. Lagerwall, Topeka, engr.

Ont., Stratford—Election in January $30,000 bonds for ornamental bridge over Avon River. Address R. R. Lang, City Hall.

Que., Thurso — J. and G. Black, Ltd., soon take bids for combined bridge and dam, $100,000. J. E. Ballee, c/o Dept. Pub. Wks., Quebec, engr.

BIDS DESIRED

North Carolina — Dec. 9, by State Hy Comn., Raleigh, bridges and culverts on State Project 155, Martin and Pitt Counties, 896 cu.yd. concrete, 75,410 lb. reinforcing, $26,000; on State Project 980, Macon and Swain Counties, 630 cu.yd. concrete, 1,509 cu.yd. rubble masonry, 76,860 lb. reinforcing, $33,000. C. M. Upham, state highway engr.

Minn., New Ulm—Dec. 2, by State Hy. Comn., St. Paul, Bridge 3660, one 171 ft. steel span and two 75 ft. truss spans on concrete abutments and piers; Bridge 3661, three 75 ft. truss spans on concrete abutments and piers over Minnesota River, near here, for Brown and Nicollet Counties, City of New Ulm and State. $60,000. C. M. Babcock, state highway engr.

S. D., Yankton—Nov. 29, by Meridian Highway Bridge Co., steel superstructure for steel and concrete double deck bridge over Missouri River, span length 1,680 ft., total length incl. approaches 5,820 ft. $400,000. Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, Mo., engrs.

Tex., Del Rio—Dec. 6, by R. T. Hunnicutt judge Val Varde Co., 450 ft. bridge over Pecos River, three 150 x 18 ft. steel spans, concrete floor, 2 rein.-con. abutments, 2 mass piers. $100,000. G. M. Jowers, co. engr. Noted Sept. 29.

BIDS RECEIVED

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, following bridges on Route 37, Jefferson Co.; (1) 1 concrete and 1 concrete substructure for steel, Sect. 1-B, (2) 1 superstructure for steel bridge, Sect. 1-C, (3) 3 concrete, Sect. 1-D, (4) 4 concrete and 1 substructure for steel, Combination L, from Zimmerly Bridge Co., Paris, (1) $30,756; Cleary & Hailey, Cincinnati, O., (1) $30,798; W. H. Shons, 109 Spring St., Freeport, (1) $30,886 (3) $17,206, (4) $46,900; Rochester Bridge Co., Rochester, Ind., (2) $6,901; Perkins Structural Steel Co., Flint, Mich., (2) $7,026; Clinton Bridge Wks., 101 South 2nd St., Clinton, Ia., (2) $7,075; H. R. Cawood, Mt. Vernon, (3) $16,362, (4) $46,939; B. F. Clark & Co., St. Louis, Mo., (3) $16,955; Riley & Bailey, St. Louis, Mo., (4) $48,000. Noted Nov. 3.

Missouri—State Hy. Dept., Jefferson City, opened bids Oct. 10, rein.-con. slab spans, on road from St. Joseph to Dearborn, Federal Aid Project 180, Buchanan Co., from Moritz & Oren, Effingham, Ill., $26,867; M. E. Gillioz, Monett, $29,630; Koss Constr. Co., 2818 5th St., Des Moines, Ia., $34,376. Noted Sept. 22.

CONTRACTS AWARDED

Conn., Danbury—Pub. Wks. Dept., 90 ft., 2 span, concrete and steel bridge, 32 ft., Chestnut St., to L. F. Sweeney, 26 Montgomery St., $25,000.

O., Dayton—Comrs. Montgomery Co. superstructure for 3 span truss highway bridge (Shepard Bridge), over Miami River to Brookville Bridge Co., Brookville, $54,472. Noted Oct. 20.

Mich., Grand Rapids—For concrete bridge over Grand River on Pearl St., to Koss Constr. Co., 2818-5th St., Des Moines, Ia., $186,700. Noted Oct. 13.

Mo., St. Joseph—Buchanan Co., one 100 ft. span, two 120 ft. spans, two 150 ft. spans and one 130 ft. span bridges, on Pikes Peak Highway-Mitchell Ave. Rd., and Saxton-Easton Rd., to Allied Contractors, Inc., 404 Peters Trust Bldg., Omaha, Neb., $47,555.

Dams

PROPOSED WORK

Wis., Mayking (Antigo P. O.)—See "Industrial Works."

Ore., Burns — See "Excavation and Dredging."

Que., Thurso—See "Bridges."

CONTRACTS AWARDED

N. H., Bennington — Monadnock Paper Mills, concrete storage dam, to Aberthaw Constr. Co., 27 School St., Boston, Mass. $15,000.

Railways

PROPOSED WORK

Maryland—Northern Maryland & Tidewater R.R., plans rebuilding 4 mi. railroad from point 4 mi. out of Jennings to Worth, Pa., connecting with Baltimore and Ohio R.R. incl. 3 bridges, 70 ft. long. W. E. Ambrose, Cumberland, genl. mgr.

Excavation and Dredging

PROPOSED WORK

Fla., Jupiter — Jupiter Inlet Dist., c/o Mayor, voted $100,000 bonds opening Jupiter Inlet to 12 ft. and laying jetties 200 ft. into ocean, 100,000 cu.yd. dredging.

Excavation and Dredging (Continued)

Ore., Burns—Harney Valley Irrigation Dist. voted bonds for system to irrigate 87,000 acres, near here, incl. earth fill dam, 110 ft. high, to form reservoir, 150,000 acre ft. capacity, on Silvies River, 1,000,000 cu.yd. earth fill. Reservoir to cost $1,400,000. Total cost $2,200,000. Baar & Cunningham, 4135 Paulding Bldg., Portland, engrs.

Ore., Grants Pass—See "Waterworks."

Ore., Klamath Falls—Langell Valley Irrigation Dist. plans to irrigate 20,263 acres. $526,000. C. T. Darley, Klamath Falls, engr.

Ia., Onawa—Monona Co. making plans improving 12.5 mi. Maple River, D.D. 32, 916,000 cu.yd. excav. $90,000. G. E. Oliver, Onawa, engr.

BIDS DESIRED

Minn., Duluth—Dec. 6, by W. H. Borgen, aud. St. Louis Co., D. D. 13, Kelsey Albion Dist., forty-two 36-60 in. and two hundred six 15 in. culverts, and 4 small concrete bridges, involving 1,340,670 cu.yd. ditching excav. and 162,790 yd. county road ditching. $275,000. F. M. McGillivray, Engineers' office, Court House, engr.

Minn., Mantorville—Dec. 3, Dodge Co., Ditch 5, 51,750 ft. 8-36 in. tile, 600 lin.ft. cleanout of outlet, surf inlets and 2 concrete headwalls. $52,072. R. Allison, Mankato, engr. Noted Sept. 1.

BIDS RECEIVED

N. Y., New York—M. Hulbert, comr. Docks, Pier "A" foot of Battery Pl., opened bids Nov. 16, dredging, (1) 103,000 cu.yd. at Piers 53, north side, 54, north side, 56, north and south sides and 64, south side North River, (2) 35,000 cu.yd. at Piers foot of 11th St., south side, 30th St., north and south sides, 61st St., north and south sides, East River; (3) 18,400 cu.yd. at bulkhead between 108th and 109th Sts., and Piers at foot of 108th St., south and north sides, 109th St., north and south sides, Hudson River; all above in Boro of Manhattan, (4) 15,500 cu.yd. at Piers at foot of Tiffany St., north and south sides, East River, Boro of Bronx, (5) 10,200 cu.yd. at Piers, foot of Fulton St., south side, foot of Washington St. and Fire Dept. Pier at 37th St., Boro of Brooklyn, from F. E. Jones Dredging Co., 17 Battery Pl., (1) $0.17 per cu.yd., total, $17,510, (2) $0.27, $9,450, (3) $0.35, $6,440, (4) $0.45, $6,975, (5) $0.40, $4,080; Columbia Dredging Co., 30 Church St., (1) $0.22, $22,660, (2) $0.40, $14,000, (3) $0.50, $9,200, (4) $0.90, $14,050; New Jersey Shipbuilding & Dredging Co., foot of 28th St., Bayonne, N. J., (1) $0.172, $17,713, (2) $0.19 1-7, $6,700, (3) $0.317, $5,865, (4) $0.327, $5,068, (5) $0.29, $2,958; P. Sanford Ross, Inc., (5) $0.47, $4,794. Noted Nov. 10.

CONTRACTS AWARDED

Ia., Red Oak—Montgomery Co., D.D., 6,211,000 cu-yd. excav., to W. F. Sternberg, Piper City, Ill., $0.0939 per cu.yd. Noted Oct. 27.

Minn., Fairmont—Martin Co., Judicial Ditch 18, 13,650 ft. 10-22 in. tile, to North Star Concrete Co., Mankato, $6,050, labor to Hansen & Sorenson, Spencer, Ia., $3,572; Judicial Ditch 25, 14,400 ft. 12-30 in. tile to Ceylon Cement Tile Co., Ceylon, $16,278; Judicial Ditch 82, 64,150 ft. 6-34 in. tile, to North Star Concrete Co., Mankato, $28,850, open work to C. Colbert, Scranton, Ia., $2,341, labor to Widman Bros., Spencer, Ia., $15,935; Judicial Ditch 101, 37,868 ft. 6-26 in. tile, to J. W. Wilkin, Dundee, Ia., $24,700. Noted Nov. 3.

Streets and Roads

PROPOSED WORK

Conn., Milford—Bd. Selectmen plan to issue $150,000 bonds, new highway work. Engineer not selected.

N. J., Trenton—Bd. Freeholders Mercer Co. plans paving ⅝ mi. South Broad St from Cedar Lane to White Horse Pike, 48 ft., $100,000; ¾ mi. Greenwood Ave. from Johnston to Logan Aves., 20 ft., $50,000. H. F. Harris, Court House, engr.

N. J., Trenton—Plans widening ½ block of West State St., from Warren St. to Chancey Lane. $100,000. A. Swan, City Hall, engr.

North Carolina—State Hy. Dept., Raleigh, plans grading, bridging and surfacing 17.7 mi. road from Johnston to Hertford Co. line, State Project 168, Northampton Co., $95,000, 20.8 mi. Boones Mill to Hertford Co. line, State Project 167, Northampton Co., $100,000, 19.41 mi. Williamston to Washington Co. line, State Project 156, Martin Co., $100,000, 9.85 mi. Williamston to Beaufort Co. line, State Project 154, Martin Co., $55,000, 9.1 mi. Northampton Co. line to Aulander, State Project 146, Hertford and Bertie Counties, $54,000, 12.6 mi. Northampton Co. line to Winton, State Project 145, Hertford Co., $75,000, 10.9 mi. Leland to Columbus Cc. line, State Project 312, Brunswick Co., $55,000, 16 mi. Southport to Supply, State Project 314, Brunswick Co., $95,000; paving concrete or some asphaltic material 3.6 mi. from end Old Federal Aid Project 61 A to Leland, State Project 313, Brunswick Co., $90,000, 7.63 mi. Old Federal Aid Project 127, State Project 291, Wilson Co., $200,000, all 18 ft. C. M. Upham, state highway engr.

North Carolina—State Hy. Comn., Raleigh, rejected bids opened Oct. 27, grading, concrete or asphaltic paving, rein.-con. bridges and culverts on 15 mi. State Project 536B, Jones Co., $325,000. Work to be re-advertised. Noted Nov. 17.

N. C., Greensboro—Guilford Co. plans sand-clay surfacing 10 mi. road from Deep River to Pleasant Garden Rd., 6 mi. Martinsville-Hillsdale Rd., 11 mi. road from Summerfield to Brown Summit, 15 mi. Gibsonville-Julian Rd.; topsoiling 4 mi. road from Oak Ridge to Stokesdale. C. O. Lowe, Greensboro, co. engr.

O., Cleveland—Plans paving East 65th East 67th, East 68th, East 69th, East 70th, East 71st, East 73rd, East 82nd, East 88th, East 84th, East 87th and East 89th Sts. $200,000. R. Hoffman, City Hall, engr.

Michigan—State Hy. Dept., Lansing, soon takes bids grading and surfacing 4.515 mi. State Trunk Line Rd. 54-5, Sects. B, C and E, Newaygo Co., gravel; 7.515 mi. State Trunk Line Rd. 53-4, Sect. B, Lapeer Co. gravel or stone-gravel. F. F. Rodgers, Lansing, state highway comr.

Wisconsin—State Hy. Comn., Madison, plans following work for 1922, grading and concrete surfacing, Project 138, Clintonville-New London Rd., Trunk Highway 22, 18 ft., Waupaca Co., $48,000; grading and gravel surfacing Project 122-B, Trunk Highway 45, Pierce Co., $44,000; relocating, grading and surfacing with mine tailings, Mineral Point-Dodgeville Rd., Project 180, Trunk Highway 28, Iowa Co., $44,000; grading and surfacing with gravel or top soil Drummond-Ashland Rd., Project 187, Trunk Highway 24, Bayfield Co., $70,000; grading Armstrong Creek-Florence Rd., Project 206, Trunk Highway 14, Florence Co., $45,000, Mineral Point-Belmont Rd., Project 221, Trunk Highway 28, Lafayette Co., $45,000, Richland Center-Viroqua Rd., Project 239, Trunk Highway 11, Richland Co., $79,915; relocating, grading and shale surfacing Black River Falls-Millston Rd., Project 214, Trunk Highway 12, 16 ft., Jackson Co., $75,000, Sparta-Black River Falls Rd., Project 256, Trunk Highway 27, 16 ft., Monroe Co., $75,911; grading and graveling Gilbert-Irma Rd., Project 223, Trunk Highway 10, Lincoln Co., $85,631; grading and partly gravel surfacing Durand-Ellsworth Rd., Project 234, Trunk Highway 34, Pierce Co., $27,000; relocating, grading where necessary Reedsburg-Spring Green Rd., Project 243, Trunk Highway 28, Sauk Co., $60,000; relocating, grading and partly surfacing with gravel Hayward-Seeley Rd., Project 246, Trunk Highway 24, Sawyer Co., $60,000; grading and partly surfacing with top soil Spooner-Cameron Rd., Project 251, Trunk Highway 11, Washburn Co., $30,000; grading, culverting and surfacing with concrete Viroqua-Prairie du Chien Rd., Project 136, Trunk Highways 11 and 27, 18 ft., Vernon Co., $91,205, Alma-Mondovi Rd., Project 270, Trunk Highway 37, 16 ft., Buffalo Co., $70,902; grading and culverting Menomonie-Hudson Rd., Project 152, Dunn Co., $48,000.

Wis., Fond du Lac—Making plans and takes bids in spring, paving 30,000-35,000 sq.yd. 12th Ellis, Grant, Oak, Connel, Packer, Linden and McWilliam Sts. Howard. Merrill and Rose Aves., asphaltic concrete, rein.-con. or types X and Y sheet asphalt. R. Petters, City Hall, engr

Ia., Burlington—Plans paving Agency St. from Osborn Ave. to city limits. $50,000. H. Vollmer, city engr.

Ia., Carroll—Carroll Co. plans gravel surfacing Primary Rd. 18 from here north to Sac Co. line and from Lincoln Highway south to Audubon Co. line, $119,000. G. H. Hill, Carroll, engr.

Ia., Missouri Valley—Plans 85,000 yd. pavement. J. F. Clinkenbeard, clk. C. L. Huff, Logan, engr. Noted Nov. 3.

Minn., Crookston—Polk Co. plans grading and graveling in 1922. $400,000. H. J. Welte, aud.

Mont., White Sulphur Springs—Meagher Co. plans improving roads. $200,000 bonds voted. G. W. Harden, aud. Noted June 7.

Mo., St. Joseph—Buchanan Co. having preliminary surveys made resurfacing 14 mi. Dekalb Rd., 16 ft., asphaltic concrete. $100,000. J. D. Mohler. Court House, engr.

Mo., St. Joseph—Rejected bids grading and paving Miller and Ashland Aves., concrete. $31,000. W. K. Seitz, City Hall, engr. Noted Oct. 13.

Que., Hull—Soon takes bids for new pavements and sidewalks, sewers and mains. $540,000. T. Lanctot, city engr.

Ont., Barrie—Making surveys for 2 mi. concrete, asphalt or bithulithic pavement. $100,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs.

Ont., Hamilton—Making surveys paving Wellington St. from Barton St. to Grand Trunk Ry., $17,000. King St. from McKittrick Bridge to Toronto, Hamilton and Buffalo Bridge, $23,000, asphalt and brick; Cambridge Ave. from Kenilworth to Frederick Sts., $16,000. Victoria Ave., $44,000, asphalt. E. R. Gray, city engr.

Ont., Huntsville—Making surveys paving ¾ mi. Main St., tarvia macadam. $50,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs.

Ont., Ottawa—Bd. Control soon takes bids soon paving Garland St. from Armstrong to Wellington Sts., $4,500, Armstrong St. from Garland St. to Bayview Rd., $7,726, Armstrong St. from Parkdale to Holland Aves., $13,200, Holland Ave. from Wellington to Armstrong Sts., $9,165, Holland Ave. from Tyndall to Carling Aves., $48,518, asphalt; grading Carling Ave. from Parkdale Ave. to Railway St., $15,875. A. F. Macallum, city engr.

Ont., Ottawa—Bd. Control soon takes bids repaving Nickolas St. from Rideau St. to Laurier Ave. E., asphalt and wood block. $35,000. A. F. Macallum, city engr.

Ont., Toronto—Dept. Highways plans 20 mi. concrete roadway on Yonge St. from north city limits to Bond Lake. $900,000. G. Hogarth, Parliament Bldgs., ch. engr.

Ont., Toronto—Plans made and will proceed with following pavements next year. Yonge St. from Farnham Ave. to Heath St., $49,320, Yonge St. from Farnham Ave. to north city limits, $614,080, asphalt; paving along tracks on Yonge St., $25,964, granite block; Yonge St., $54,156 asphaltic concrete; grading Lake Shore Rd., $47,525. R. C. Harris, city engr.

BIDS DESIRED

N. Y., Brooklyn—Dec. 1, by E. Riegelmann, boro pres., Boro Hall, repaving Nevins St. from State St. to Atlantic Ave., permanent wood block on 6 in. concrete, Ridge Blvd. from Ovington Ave. to 79th St. permanent asphalt on 6 in. concrete, Tillary St. from Washington to Lawrence Sts., grade 1 granite block on 6 in. concrete.

N. Y., New York—Nov. 28, by H. H. Curran, pres. Manhattan Boro., curbing and recurbing Fairview Ave., etc.; grading West 187th St., etc.; repaving East 52nd St. also 76th St. from Ave. A to Lexington Ave., etc., sheet asphalt.

N. Y., S. I., St. George—Nov. 30, by C. D. Van Name, pres. Richmond Boro, Boro Hall, repaving roadway of Wright St. from Water to Van Duzer Sts., napped granite block.

West Virginia—Dec. 16, by State Rd. Comn., Charleston, grading 5 mi. Project 3002, Monongalia Co., 3 mi. Project 3076, Calhoun Co., 4.6 mi. Project 3036, Boone Co., 3.1 mi. Project 3041, Greenbrier Co., 4 mi. Project 3050, Pocahontas Co., 4.4 mi. Project 3015, Grant Co.; grading and concrete paving 2 mi. Project 3075, Jackson Co., 1.8 mi. Project 3064, Cabell Co., 3.3 mi. Project 3027, Morgan Co.; paving and grading 2 mi. Project 3086, waterbound macadam surface treated, Marshall Co.; paving 2.7 mi. Project 3097, concrete, Wayne Co. E. B. Carskadon, secy.; adv. this issue.

North Carolina—Dec. 9, by State Hy. Comn., Raleigh, clearing, grading, bridging and surfacing, 7.04 mi. State Project 856, Mitchell Co., 14 acres clearing, 73,200 cu.yd. excav., 15,100 cu.yd. rock excav., 3,398 ft. 18-30 in. corrugated metal pipe, 69,880 sq.yd. penetration macadam, 490 cu.yd. concrete, 1,150 cu.yd. rubble masonry, 48,900 lb. reinforcing, etc., $175,000, 17.84 mi. State Project 980, Macon and Swain Counties, 54 acres clearing, 209,800 cu.yd. excav., 59,000 cu.yd. rock excav., 9,598 ft. 18-24 in. corrugated metal pipe, 6,325 cu.yd. rubble masonry, 113,400 sq.yd. waterbound macadam, $240,000, 5.24 mi. State Project 811, Burke Co., 5 acres clearing, 54,600 cu.yd. excav., 1,694 ft. 18-24 in. corrugated metal pipe, 55,050 sq.yd. concrete or asphaltic paving, 142 cu.yd. concrete, 10,540 lb. reinforcing, $195,000, 5.01 mi. State Project 920, Clay Co., 6 acres clearing, 38,800 cu.yd. excav., 1,482 ft. 18-30 in. corrugated metal pipe, 11,800 cu.yd. gravel surfacing, 373 cu.yd. concrete, 734 cu.yd. rubble masonry, 15,030 lb. reinforcing, $40,000; grading and paving 7.63 mi. State

Streets and Roads (Continued)

Project 291, on Federal Aid Project 127, Wilson Co., 8,000 cu.yd. grading and 71,330 sq.yd. concrete or asphaltic paving, $217,990, 4.51 mi. State Project 695, part of Old Federal Aid Project 39, Union Co., 4,700 cu.yd. grading, 42,320 sq.yd. concrete or asphaltic paving, $129,000; clearing, grading and topsoiling 19.3 mi. State Project 155, Martin and Pitt Counties, 24 acres clearing, 27,400 cu.yd. excav., 85,100 cu.yd. borrow, 2,168 ft. 24-30 in. concrete or c.i. pipe, 246 cu.yd. concrete and 45,350 cu.yd. topsoiling, $67,700; clearing, grading, bridging and topsoiling 5.2 mi. State Project 833, Henderson Co., 5 acres clearing, 45,400 cu.yd. excav. and borrow, 6,100 cu.yd. rock excav., 1,656 ft. 15-30 in. corrugated metal pipe, 2,150 cu.yd. topsoiling, 297 cu.yd. concrete, 203 cu.yd. rubble masonry, 22,450 lb. reinforcing, $37,300; clearing, grading and bridging 9.89 mi. State Project 113A, Chowan Co., 10 acres clearing, 35,300 cu.yd. excav., 772 cu.yd. concrete, 54,260 lb. reinforcing, $31,100, 10.4 mi. State Project 114, Chowan Co., 8 acres clearing, 47,000 cu.yd. excav., 714 cu.yd. concrete, 64,150 lb. reinforcing, $43,500; grading, topsoiling and paving 5.97 mi. State Project 782, Wilkes Co., 21,300 cu.yd. excav., 900 cu.yd. rock excav., 1,046 ft. 12-18 in. corrugated metal pipe, 6,520 cu.yd. topsoiling, 31,940 sq.yd. concrete or asphaltic paving and 255 000 sta. yd. overhaul, $113,700. C. M. Upham, state highway engr.

Fla., Dunedin—Dec. 13, paving and laying sewers in various streets. $115,000. G. S. Iredell, Campbell Bldg, Tampa, engr.

Fla., Melbourne—Dec. 1, 34,134 sq.yd. bituminous penetration wearing surface on waterbound macadam, $80,000; 5,420 ft. concrete curb and gutter, 22,066 concrete curb and several culverts, $25,000.

Minnesota—Dec. 2, by State Hy Comn., St. Paul, grading 157,000 cu.yd. State Project 28-23 between Westport and Sauk Centre, Federal Aid Project 246, Pope and Stearns Counties, $35,000; 48,000 cu.yd. State Project 7-25 between Mankato and Janesville, Federal Aid Project 247, Blue Earth Co., $14,000; $168,917 cu.yd. State Project 35-21 between Aitkin and Bennettsville, Federal Aid Project 245, Aitkin Co., $38,000; 118,000 cu.yd. State Project 23-22 between Foley and Milaca, Federal Aid Project 243, Benton and Mille Lacs Counties, $27,000; 237,000 cu.yd. State Project 65-21 and 8-26 between Bagley and Clear Brook, Federal Aid Project 248, Clearwater Co., $50,000; 145,000 cu.yd. State Project 9-25 between Preston and Lanesboro, Federal Aid Project 244, Fillmore Co., $32,000. C. M. Babcock, state highway engr.

Minnesota—Dec. 9, by State Hy. Comn., St. Paul, concrete paving 241,000 sq.yd. State Project 27-21, between Morrison Co. line and Sherburne Co. line, Benton Co. $770,000. C. M. Babcock, state highway engr.

Minn., Little Falls—Dec. 21, by B. Y. McNairy, Morrison Co., aud. concrete paving 10.5 mi. Minnesota Trunk Highway 27, from here to Royalton. $325,000. State Highway Dept., St. Paul, engrs.

Kan., Iola—Dec. 23, by Allen Co. grading and paving 2.034 mi. Federal Aid Project 101, Sect. A, 18 ft. A. R. Stroup, Iola, engr.

Neb., Buffalo—Dec. 2, by Secretary of Dept. Pub. Wks., gravel surfacing 16.87 mi. various streets, 191,223 sq.yd. gravel surface, 700 cu.yd. excav. 592 ft. 12-36 in. concrete culvert pipe, 42 ft. 18-24 in. corrugated culvert pipe, etc. G. E. Johnson, Lincoln, state engr.

N. D., Devils Lake—Nov. 29 by Ramsey Co., gravel surfacing 12.5 mi. Federal Aid Project 95, through Penn and Grand Harbor. $28,000. County to furnish gravel in pits. J. A. Kramer, aud.

Tex., Del Rio—Dec. 6, by R. F. Hunnicutt, judge Val Verde Co., grading and surfacing 4.3 mi. State Highway 12, 12, 151 cu.yd. borrow, 2,598 cu.yd. roadway and 24,890 cu.yd. solid rock excav., 209.90 cu.yd. concrete, 8,719 lb. reinforcing, 3,698 cu.yd. crushed rock and 6,249 cu.yd. gravel surfacing. $95,000. G. M. Jowers, co. engr. Noted Sept. 29.

Tex., Denison—Nov. 29, by J. F. Nichols, mayor, grading and paving Bois d'Arc, Bourland, Cornelia, Division, Gordon and King Sts., 31,700 lin.ft. combined concrete curbing and guttering, 10,075 cu.yd. earth excav., 140 cu.yd. concrete, 34,445 sq.yd. asphalt, concrete or bituminous concrete, 8,525 ft. 10-15 in. vitr. sewer pipe, etc. $100,000.

Tex., Eastland—Dec. 1, by C. R. Starnes, judge Eastland Co., grading and surfacing 8.88 mi. State Highway 1, between here and Granger, 10,230 cu.yd. borrow, 15,652 cu.yd. roadway, 2,227 cu.yd. loose and 2,675 cu.yd. solid rock excav., 29,524 cu.yd. crush rock base, 380.1 cu.yd. concrete, 93,071 sq.yd. bituminous concrete, 26,914 lb. reinforcing, etc. $402,116. W. R. Eccles, co. engr. Noted Oct. 13.

Tex., Greenville—Dec. 5, by O. P. McWhirter, judge Hunt Co., grading, surfacing and bridging 9.66 mi. State Highway 1, Federal Aid Project 188. $286,233. A. D. Duck, co. engr. Noted Nov. 10.

Utah, Salt Lake City—Nov. 29, by City Recorder, curbing and guttering Dist. 24, from H to N Sts. and from 3rd to 11th Aves. $186,000. S. Q. Cannon, city engr. Noted Oct. 27.

Washington—Dec. 5, State Hy. Comn., Olympia, grading and graveling 11 mi. Olympic Highway, from Beaver to Forks, Clallam Co.; 4 mi. North Bank Highway, Cooks Grade, Skamania Co. J. Allen, state highway engr.

California—Dec. 5, by State Hy. Comn., Sacramento, paving 3.7 mi. highway between Selma and Kingsburg, Fresno Co., cement concrete asphalt concrete surface; asphalt concrete paving 7 mi. highway, one section near Castaic School, other 11 mi. south of Liebre Mountain, Los Angeles Co., 7.9 mi. highway between Morgan Hill and Gilroy, Santa Clara Co. A. B. Fletcher, state highway engr.

Cal., Calexico—Dec. 6, by City Clerk, concrete curbs and cement sidewalks on various streets in residential district, 98,833 lin.ft. concrete curbing, 32,833 sq.ft. concrete cross walks, 474,270 sq.ft. cement sidewalk, 30,600 cu.yd. grading. P. M. Entemann, city engr.

Cal., Los Angeles—Nov. 28, by Bd. Pub. Wks., paving, curbing and guttering Eaglerock Ave. and other streets, 6 in. concrete.

Cal., Santa Barbara—Dec. 5, by Bd. Supervs. Santa Barbara Co., paving 28 mi. Surf-Lompoc Rd., 1½ in. asphaltic concrete surface on 3½ in. asphaltic concrete. $400,000. O. H. O'Neill, co. surv.

Cal., Ventura—Dec. 7, by Bd. Supervisors asphalt concrete paving 48,000 sq. ft. Foothill and Day Roads.

BIDS RECEIVED

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Nov. 17, grading, curbing and laying sidewalks on (1) Clarkson Ave. also paving roadway Clarkson Ave. from Troy Ave. to point about 75 ft. west of East 49th St., etc., curbing, (2) Elmore Pl., paving (3) roadway of Glenmore Ave., (4) roadway at intersection of New York Ave. and Montgomery St., (5) roadway of Senator St., (6) roadway of Williams Ave., (7) roadway space between outer rails and curb on 8th Ave., (8) roadway of 74th St., (9) roadway of 80th St., from Sicilian Asphalt Paving Co., 41 Park Row, New York, (1) $19,794, (2) $10,782, (3) $2,663, (4) $1,395, (6) $9,445 (9) $8,129; Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (1) $19,974, (2) $9,985, (7) $5,408, (8) $8,030, (9) $7,294; Borough Asphalt Co., 1301 Metropolitan Ave., (1) $19,993, (2) $9,676, (3) $2,383, (4) $1,174, (5) $6,982, (6) $8,095, (7) $5,117, (8) $7,550, (9) $6,892; Cranford Co., 52-9th St., (5) $8,225, (7) $5,584, (8) $8,837; Uvalde Asphalt Paving Co., 1 B'way, New York, (5) $8,329; Cleveland Trinidad Paving Co., Flushing, (3) $2,426, (4) $1,222, (6) $8,826. Noted Nov. 10.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg. opened bids Nov. 15, repaving (1) Bleecker St., (2) East 52nd St., (3) 69th St., (4) East 76th St., (5) 65th St. from Interboro Asphalt Co., 233 B'way, (1) $3,646, (2) $24,691, (3) $12,001, (4) $6,744, (5) $11,374; Brusstar Constr. Co., Inc., Harlem River and 150th St., (1) $3,831, (2) $24,796, (3) $11,906, (4) $6,596, (5) $11,365; C. D. Beckwith, Inc., 301 West 108th St., (1) $4,197, (2) $28,071, (3) $13,538, (4) $7,165; J. E. Gaffney, 438 East 91st St., (2) $24,427, (4) $6,109, (5) $11,329; Asphalt Constr. Co., 2197 Madison Ave., (2) $24,706, (3) $13,357, (4) $6,228. Noted Nov. 10.

Fla., Titusville—Brevard Co. clearing and bituminous macadam surfacing 15 mi. road from Melbourne to Osceola Co. line, from E. P. Maule, Ojus, $119,583. Noted Oct. 27.

Ohio—Dept. Highways and Pub. Wks., Columbus, opened bids Nov. 19, grading, bridges, culverts and paving roads in following counties: Sect. "A" Youngstown-East Liverpool Rd., 1.58 mi. from Cavanaugh-De Niro Co., Youngstown, brick, $62,297, bituminous macadam, $52,806; Tagenhorst & McLaughlin Co., East Liverpool, brick, $63,802, bituminous macadam, $54,610; Allison-Harris Co., East Liverpool, brick, $65,834; R. H. Shafer Co., Chamber of Commerce Bldg., Columbus, bituminous macadam, $49,896. Henry Co., Sect. "A" Toledo-Napoleon Rd., 3.35 mi., waterbound macadam, R. Stone, Lima, $39,218; F. F. Walton Co., Upper Sandusky, $39,771; J. A. Westrick & Son, Napoleon, $37,835. Columbiana Co., Sect. "C" Lisbon-Salinville Rd., 0.971 mi., grading and paving, from L. H. Young, West Austontown, brick, $35,394, bituminous macadam, $28,081; Tagenhorst & McLaughlin, East Liverpool, brick, $35,701; Cavanaugh-De Niro Co., Youngstown, brick, $35,671; R. H. Shafer Co., Chamber of Commerce Bldg., Columbus, bituminous macadam, $25,994; E. E. Miller & Son, Canfield, bituminous macadam, $29,046. Williams Co., Sect. "C-1" Bryan-Napoleon Rd., grading bridges and culverts, J. A. Westrick, Napoleon, $28,818; F. F. Walton Co., Upper Sandusky, $31,054; W. G. Reiund, Holgate, $32,048. Adams Co., Sect. "D" West Union-Sinking Springs Rd., bridge, Charles J. Fox, Brookville, O., $5,326; J. M. Day Constr. Co., Peebles, $5,560; Laub & Smith, New Richmond, $5,655. Licking Co., Sect. "G" Newark-Mt. Vernon Rd., bridge, Ruhela, Mackey & Harkoman, Chardon, $7,657; Newark Paving & Constr. Co., Newark, $8,631; Stout & Stout, Stoutsville, $8,659. Sect. "G" Newark-Mt. Vernon Rd., bridge, Newark Paving & Constr. Co., Newark, $21,813; Stout & Stout, Stoutsville, $21,419; Swingle & Robinson, Columbus, $22,160. Licking Co., Sect. "G" Newark-Mt. Vernon Rd., repairing bridge, Capitol Constr. Co., Columbus, $3,846; Ruhela, Mackey & Harkoman Co., Chardon, $3,688; F. F. Walton Co., Upper Sandusky, $3,739. Noted Nov. 3.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving (1) 4.55 mi. Route 2, Sect. 24, Fayette Co. (2) 4.82 mi. Route 2, Sect. 25, Fayette-Marion Co. (3) 4.39 mi. Route 2, Sect. 26, Marion Co. (4) 13.77 mi. Route 2, Combination A, Fayette-Marion Co. (5) 4.52 mi. Route 2, Sect. 27, Marion Co. (6) 4.34 mi. Route 2, Sect. 28, Marion Co. (7) 3.47 mi. Route 2, Sect. 29, Marion Co. (8) 12.32 mi. Route 2, Combination B, Marion Co. (9) 26.09 mi. Route 2, Combination C, Fayette-Marion Co. (10) 3.98 mi. Route 2, Sect. 30, Marion-Washington Co. (11) 4.53 mi. Route 2, Sect. 31, Washington Co. (12) 8.52 mi. Route 2 Combination D, Marion-Washington Co. (13) 3.29 mi. Route 2, Sect. 32, Washington Co. (14) 2.76 mi. Route 2, Sect. 33, Washington Co. (15) 6.05 mi. Route 2, Combination E, Washington Co. (16) 14.57 mi. Route 2, Combination F, Marion-Washington Co. (17) 40.66 mi. Route 2, Combination G, Fayette-Marion-Washington Co. (18) 6.86 mi. Route 3, Sect. 68, Monroe Co. (19) 4.64 mi. Route 5, Sect. 19, Stephenson Co. (20) 2.53 mi. Route 5, Sect. 20, Stephenson Co. (21) 4.64 mi. Route 5, Sect. 21, Stephenson Co. (22) 7.17 mi. Route 5, Combination H, Stephenson Co. (23) 5.45 mi. Route 5, Sect. 22, Stephenson Co. (24) 5 mi. Route 5, Sect. 23, Stephenson Co. (25) 22.27 mi. Route 5, Combination J, Stephenson Co. (26) 5.96 mi. Route 7, Sect. 3, Henry Co. (27) 5.2 mi. Route 7, Sect. 6, Henry Co. (28) 1.35 mi. Route 7, Sect. 8-C, Bureau Co. (29) 4.45 mi. Route 7, Sect. 9, Bureau Co. (30) 5.57 mi. Route 7, Sect. 10, Bureau Co. (31) 1.36 mi. Route 7, Sect. 11, Bureau Co. (32) 12.73 mi. Route 7, Combination K, Bureau Co. (33) 6.85 mi. Route 31, Sect. 1, Adams Co. (34) 7.54 mi. Route 31, Sect. 2, Adams Co. (35) 0.3 mi. Federal Aid Project 8, Sect. V-3, Macoupin Co.; grading (36) 5.06 mi. Route 3, Sect. 38-A, McDonough Co. (37) 0.24 mi. Route 4, Sect. 4-A, Will Co. (38) 5.57 mi. Route 37, Sect. 1-A, Jefferson Co., from Mautz & Oren, Effingham. (1) $94,744, (2) $97,373, (3) $88,232, (4) $278,900, (5) $89,155, (13) $68,236, (14) $59,344, (15) $127,000. J. W. Etchison, Casey, (1) $95,987, (2) $98,100, (3) $89,026, (5) $94,965, (6) $91,141, (7) $73,456, (8) $256,946, (9) $534,389. Cameron, Joyce & Co., Keokuk, Ia., (1) $100,723, (3) $96,070, (4) $299,000, (5) $99,427, (8) $276,719, (34) $171,680; (36) $17,768, (38) $46,666. M. Hayes & Sons, Janesville, Wis., (2) $105,997, (4) $300,000. W. C. Johnson, 510 South High St., Belleville, (6) $98,173, (7) $81,245, (8) $270,454, (9) $575,000, (38) $48,257. R. L. Williams, Wyatt, Mo., (6) $97,469, (7) $78,263, (9) $561,827 (10) $101,189, (11) $117,974, (13) $79,638, (14) $66,828, (17) $896,698. E. Berns & Co., Chicago, (10) $99,107, (11) $113,698, (13) $77,902, (14) $65,615, (16) $323,929. C. E. Carson & Co., 155 North Clark St., Chicago, (10) $110,807, (16) $340,000. Alzina Constr. Co., Springfield, (11) $114,216, (12) $224,756, (15) $145,678. Powell & Gaven, Collinsville, (18) $144,862. Stocker Gravel & Constr. Co., Highland, (18) $150,004. Edwardsville Constr. Co., Edwardsville, (18) $152,818. F. A. Nelson, Racine, Wis., (19) $107,453, (20) $61,054, (21) $110,539, (23) $130,325, (24) $125,701, (25) $520,000. Gund Graham Co., Davenport, Ia., (19) $117,768. States Improvement Co., 10 South La Salle St., Chicago, (19) $118,704, (21) $115,571, (22) $163,250. J. J.

Streets and Roads (Continued)

Dunnegan Constr. Co., Shenandoah, Ia., (20) $67,958, (21) $113,411, (22) $175,000, (23) $139,850, (24) $136,102, (26) $154,173, (28) $31,422, (29) $111,157, (30) $129,065, (31) $35,350, (32) $298,000. Federal Paving Co., 133 West Washington St., Chicago, (20) $71,045, (23) $138,948, (24) $142,677, (25) $479,999. L. O. Kuhn, Bloomington, (26) $149,639, (27) $116,240. Trompeter & Son, Peru, (27) $105,767. R. F. Conway Co., 133 West Washington St., Chicago, (27) $124,950. Weber Co., Ionia, Mich., (28) $29,720, (29) $101,666, (30) $117,670, (31) $30,316. Jaicks Bros., Chicago, (28) $30,032, (29) $103,260, (30) $124,344, (31) $33,497, (32) $288,000. Jensen & Schaefer, Pekin, (32) $307,983. F. Reis, Quincy, (33) $128,977. Eiff & Simons, Quincy, (33) $148,425. W. F. Smith & Co., Rensselaer, Ind., (35) $11,106. R. Colbine & Bro., Gillespie, Ind., (35) $13,460. J. A. Awe, Lincoln, (36) $19,810. A. O. McCoy, Clayton, (36) $21,435. Powers-Thompson & Co., Joliet, (37) $4,513. Jobst & Gates, Peoria, (38) $42,694. Noted Nov. 3.

Missouri — State Hy. Dept., Jefferson City, opened bids Oct. 10, 6.639 mi. road from St. Joseph to Dearborn, Federal Aid Project 180, Buchanan Co., (1) 47,254 cu.yd earth excav., (2) 69,689 sq.yd. concrete paving, crushed rock aggregate, (3) 69,689 sq.yd concrete paving joplin chats aggregate, etc., from Moritz & Oren, Effingham, Ill., (1) $0.33, (2) $2.79, (3) $2.69, total with (2) $218,519, with (3) $211,550; M. E. Gillioz, Monett, (1) $0.40, (2) $2.85, (3) $2.70, with (2) $228,327, (3) $217,874; Koss Constr. Co., 2818 5th St., Des Moines, Ia., (1) $0.40, (2) $2.99, (3) $2.97; with (2) $238,291, (3) $236,897.

Tex., Denton—Denton Co. surfacing 10.03 mi. State Highway 40, Denton-Dallas Rd., from F. P. McElwrath, Corsicana, $45,199; J. E. Ward, 510 Slaughter Bldg., Dallas, $47,737; Tibbetts Constr. Co., Box 179, Mineral Wells, $47,746. Noted Oct. 27.

Tex., San Marcos—Hays Co. grading and surfacing 13.92 mi. State Highway 29 A, from Rice & Winder, 1011 West 22nd St., Austin, $57,059; Holt & Ruby, Brida, $59,691; Bates & Scott, Bellaire, $59,335. Noted Nov. 3.

California—State Hy. Comn., Sacramento, paving 8.35 mi. highway between Batavia and northerly boundary, Solano Co., 10,000 ton asphalt concrete, from Clark & Henery Constr. Co., 38 South Sutter St., Stockton, $44,200; A. Teichert & Son, Ochsner Bldg., Sacramento, $48,800; Warren Constr. Co., Journal Bldg., Portland, Ore., $49,000. Noted Nov. 3.

CONTRACTS AWARDED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., grading Van Pelt St., to Welsh Bros. Contg. Co., 32 Queens Blvd., Astoria, $4,475; repaving Lawrence St., to W. P. McDonald Constr. Co., 17 West 42nd St., New York, $32,774; Rockaway Blvd., etc., to Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $5,960. Noted Nov. 17.

N. J., Mays Landing — Bd. Freeholders Atlantic Co., Guarantee Trust Bldg., Atlantic City, paving Sugar Creek Sect. of Pleasantville-Mays Landing Rd., Hamilton Twp., here, to Sutton & Corson Co., 9th and Simpson Sts., Ocean City, $98,333. Noted Oct. 27.

Pennsylvania — State Highway Dept., Harrisburg, 21,098 ft. Butler Co., 24,445 cu.yd. excav., 32,793 sq.yd. concrete, 4,758 sq.yd. vitr. brick, to Connell, Laub & Bracht, 808 North Main St., Dayton, O., $161,358; 20,438 ft. Butler Co., 19,133 cu. yd. excav., 7,507 sq.yd. vitr. brick, 33,500 sq.yd. concrete, to C. E. Walter, Butler, $195,926. Noted Oct. 6.

West Virginia—State Rd. Comn., Charleston, grading and paving 6.45 mi. Culloden-St. Albans Rd., Putnam Co., 36,000 cu.yd. excav., 60,500 sq.yd. bituminous macadam, 1,150 sq.yd. concrete, 35 acres clearing, 5,000 cu.yd. overhaul, 19,000 lb. reinforcing, 2,110 lin. ft. 15-24 in. vitr. clay pipe, 136,500 gal. bituminous material for penetration macadam, etc., to Hunt-Forbes Constr. Co., Ashland, Ky., $201,206; 6.8 mi. Midland Trail, Fayette Co., 71,195 cu.yd. excav., 63,812 sq.yd. bituminous macadam, 10,635 cu.yd. broken stone base, 9,410 lb. reinforcing, 1,560 lin. ft. 12-24 in. vitr. clay pipe, 143,577 gal. bituminous material for penetration macadam, to A. Keathley, Charleston, $204,067; 2.6 mi. Midland Trail, Kanawha Co., 41,700 cu.yd. excav., 26,400 sq.yd. bituminous macadam surface, 14,750 lb. steel, 530 lin. ft. 15-18 ft. vitr. clay pipe, 59,400 gal. bituminous material for penetration macadam, 5,114 cu.yd. broken stone, etc., to C. S. Waugh, Williamson, $100,382; 3.5 mi. Parkersburg-Williamstown Rd., Wood Co., 1,000 cu.yd. overhaul, 5,102 cu.yd. borrow excav., 15,334 cu.yd. excav., 6,250 cu.yd. one course concrete paving, 17,580 lb. reinforcing, etc., and 2 mi. National Pike, Ohio Co., 8,167 cu.yd. excav., 4,460 cu.yd. 1 course concrete, 822 cu.yd. broken stone base, 11,162 lb. reinforcing, 125,190 lb. metal reinforcing, to Kennedy Constr. Co., Parkersburg, $94,937 and $73,640 respectively; grading 2 mi. Glenville-Weston Pike, Gilmer Co., 10,000 lin. ft. clearing 31,200 cu.yd. excav., etc., to J. M. Randich & Co., Huntington, $26,777; 10.35 mi. Northwestern Turnpike Mineral Co., 15 acres clearing, 62,000 cu.yd. excav., 9,000 lb. reinforcing, 1400 cu.yd. gravel surfacing, 2,710 lin. ft. 15-24 in. rein.-con. pipe, 830 cu.yd. concrete, etc., to Mononghala Constr. Co., Fairmont, $70,628, 1.75 mi. Fairmont-Morgantown Rd., Marion Co., 8,556 lin. ft. clearing, 12,101 cu.yd. excav., to A. L. Nickolich, Fairmont, $14,057; 4 mi. Fairmont-Morgantown Rd., Monongalia Co., 20,000 lin. ft. clearing, 65,000 cu.yd. excav., 1,125 cu.yd. concrete, 4,00 cu.yd overhaul, 1,52 lin. ft. 18-36 in. rein.-con. pipe, etc., to Ferguson Bros. & Co., Shinnston, $72,398. Noted Oct. 27.

North Carolina—State Hy. Comn., Raleigh, grading and paving with topeka 5.12 mi. State Project 427, Granville Co., to R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, $145,116; rein.-con. paving and grading 2.3 mi. State Project 410, Durham and Orange Counties, to C. D. Rigsbee, Durham, $76,293; topeka paving, grading and rein.-con. structures on 6.64 mi. State Project 482, Wake Co., to R. M. Hudson Co., Salisbury, $174,240; clearing, grading, topeka paving on 7.4 mi State Project 481 to Union Paving Co., 30th and Locust Sts., Phila., $220,269, rein.-con. culverts on same to P. R. Ashby, Tucker Bldg., Raleigh, $9,623; grading 3 mi. State Project 455, Orange Co., to J. F. Mulligan Co., North Wilkesboro, $17,488, rein.-con. bridges and culverts on same to P. R. Ashby, Tucker Bldg., Raleigh, $24,708. Noted Nov. 17.

North Carolina—State Hy. Comn., Raleigh, grading, rein.-con. bridges and culverts, and paving 10 mi. State Project 616, Wayne Co.. topeka on 5 in concrete, to Union Paving Co., 30th and Locust Sts., Phila., $283,000. Noted Nov. 17.

N. C., Charlotte—Paving 14 mi. streets, to Blythe Bros., Charlotte, $525,000. Noted Nov. 3.

Tenn., Chattanooga — Paving Williams St., asphalt, concrete curbs and gutters, to West Constr. Co., Vol. Bldg., $40,000.

O., Akron—Director Pub. Serv., grading and laying sidewalks 1 mi. West Exchange St., to M. Kalain, Wilson St., $19,000. Noted Nov. 10.

O., Cleveland Heights (Warrensville P. O.)—Grading and laying concrete sidewalks on Silsby Rd., to Strohman & Kidder, 437 The Arcade, $24,657; paving Elbon Rd., asphalt, to Spence Bros., 2078 Randon Rd., $26,850. Noted Nov. 17.

O., Lakewood (Cleveland P. O.)—Bd. Educ., Warren Rd., grading, seeding, sodding, tiling lawn areas, retaining wall, stone steps and brick driveways, at Horace Mann and Emerson Jr. High Schools, to R. E. Carey Co., 1500 West 112th St., Cleveland, $39,000. Noted Nov. 10.

Michigan—State Hy. Dept., Lansing, grading and surfacing 19.28 mi. Federal Aid Project 53, Arenac and Ogemaw Counties, to W. J. Meagher, Fay Blk., Bay City, 63,648 cu.yd. excav., $0.55, 55,207.3 cu.yd. 1:2:4 concrete, $23, 221.7 cu.yd. 1:3:6 concrete, $20, 180,977 sq.yd. gravel, $0.63, etc., total, $164,747; grading 11.426 mi. State Trunk Line Rd. 35-5, Sect. C, Marquette Co., to G. P. Schail, Muskegon, 67.81 acres clearing, $75, 152,175 cu.yd. excav., $0.53, 265 cu.yd. 1:2:4 concrete, $25, 526.8 cu.yd. 1:3:6 concrete, $24, etc., total, $175,387.

Mich., Cassopolis—State Hy. Dept., at office Bd. Rd. Comrs. Cass Co., grading 6.398 mi. Federal Aid Project 49, Sect. A, Cass and St. Joseph Counties, to G. P. Schail, Muskegon, $34,304. Noted Nov. 3.

Kan., Cawker City—Grading and paving 15,029 sq.yd. Wisconsin and Pennsylvania Aves., asphaltic concrete, to J. W. Watts Constr. Co., Concordia, $2.26 per sq.yd.

Tex., Bay City—Matagorda Co., ditching and surfacing 7.23 mi. State Highway 12-A, to J. D. Burress, 802 Oxford St., Houston, $52,590. Noted Nov. 17.

Okla., Okmulgee—State Hy. Dept., Oklahoma City, concrete paving 11.12 mi. Sects. A and B, Federal Aid Project 53, Okmulgee Co., to Allen & Harrison, 315 Empire Bldg., Oklahoma City, $372,285. Noted Nov. 3.

Idaho, Twin Falls—Twin Falls Highway Dist. grading and gravel surfacing 5.75 mi. roads, to C. H. Mull, Twin Falls, $27,404; building structures and steel bridge, to Perham & Harris, St. Anthony, $6,649 and $5,815 respectively.

Industrial Works

PROPOSED WORK

Mass., Lowell—H. Pitts, Hurd and Warren Sts., plans 2 story, 80 x 150 ft., brick and rein.-con. garage, Middlesex St. $125,000. Ashton & Atler, 477 Essex St., Lawrence, archts.

Mass., Northampton—Bd. Trustees Smith College, soon lets contract 2 story, 45 x 120 ft., brick and rein.-con. laundry and garage, plain foundation, on Campus. Densmore & LeClear, 88 Broad St., Boston, archts. and engrs.

N. Y., Buffalo—Natl. Lamp Co., Nela Park, East Cleveland, O., having plans prepared by G. H. Johnson, archt., Nela Park, East Cleveland, O., 1 story, 40 x 80 ft., brick and steel boiler house and gas plant, plain foundation, here. $75,000.

N. Y., New York—See "Buildings."

N. Y., Rochester—Pennsylvania Glass Sand Co. (owner and archt.), 493 West Ave., preparing plans 1 story, 45 x 105 ft. grinding mill, brick. $50,000.

N. J., Camden—J. B. Moery, 284 North 34th St., soon takes bids 1 story, 40 x 100 ft. garage and repair shop, 41st and Maple Sts. $40,000. Lackey & Hettle, 509 Federal St., archts.

N. J., El Mora (Elizabeth P. O.)—Amer. Type Fdry. Co., Communipaw Ave., Jersey City, plans foundry, here. W. Kelly, Westfield, official of company.

N. J., Linden—Warner Quinlan Co., 79 Wall St., New York, having sketches made by Gifford, Hintze & Baker Eng. Corp., archts. and engrs., c/o L. B. Walters, 227 Fulton St., New York, oil refinery and asphalt plant, here. $2,000,000.

Pa., Foxburg—H. D. Walbridge & Co., 14 Wall St., New York, having surveys made hydro-electric power plant on Clarion River, here. Only section to be constructed at this time will be concrete dam, 1,200 ft. long, 250 ft. high, 250 ft. thick at base, 20 ft. thick at top, also building to house water turbines and equipment. $4,000,000. Address W. Partridge, Foxburg Inn, Foxburg.

Pa., Indiana—Raylo Co., 1228 Fulton Bldg., Pittsburgh, soon takes bids 4 story, 50 x 120 ft. factory, Philadelphia St., here. $85,000. Private plans.

Pa., Pittsburgh—Ward Baking Co., 3100 Liberty Ave., plans 1 story auto repair shop. $50,000.

La., Kenner — Natl. Petroleum Co., Hibernia Bank Bldg., New Orleans, having plans prepared for oil refinery, and extensive improvements to holdings, here. P. A. Leslie, mgr.

O., Ashtabula—Silurium Mfg. Co., c/o E. W. Steinbrenner, Sloan Bldg., Cleveland, having plans prepared by A. W. Harris, archt., Schofield Bldg., Cleveland, 1 and 2 story, brick, steel and concrete factory, plain foundation, here. $250,000. Noted May 19.

O., Columbus—W. L. Lillie Co., Sycamore St., takes bids about Jan. 1, 2 story, 40 x 250 ft. factory addition. $100,000. J. B. Powell, 1455 Eastwood Ave., archt.

O., East Palestine—Natl. Fireproofing Co., 1126 Fulton Bldg., Pittsburgh, Pa., having plans prepared by S. F. Heckert, archt., Bessemer Bldg., Pittsburgh, 1 story, 100 x 100 ft. brick plant, here. $60,000.

Mich., Detroit—O. H. Kavieff, archt., 712 Empire Bldg., prepared plans for 1 story, 100 x 100 ft. rein.-con., brick and steel garage, plain foundation, Lawndale and Navy Aves. $74,000. Owner's name withheld.

Ill., Jacksonville—International Shoe Co., 1505 Washington St., St. Louis, Mo., having plans prepared by A. Hume, archt., c/o owner, 3 story, brick and steel factory, here. $50,000.

Ill., Joliet—Flint Sanitary Mills Co., c/o G. and T. Flint, having plans prepared by H. A. Hahn archt., c/o Davis-Watkins Mfg. Co., Davis and 23rd Sts., North Chicago, rein.-con., brick and stone dairy. $150,000.

Ill., Zeigler—Zeigler Ice & Bottling Co. having plans prepared by Kennerly & Stiegemeyer, archts., Title Guaranty Bldg., St. Louis, Mo., 2 story, 90 x 105 ft. rein.-con. and brick plant. $50,000. Noted Nov. 17.

Wis., Dundas—Calumet Packing Co., c/o P. H. Peacock, secy., 309 Michigan Ave., Sheboygan, plans 2 story, 60 x 85 ft., canning plant, brick, rein.-con. and tile. $40,000. Architect not selected.

Wis., Fond du Lac—Combination Door & Screen Co., 180 Ruggles St., having plans prepared by B. E. Mehner, archt., 6 East Division St., 3 story, 50 x 50 ft. factory, brick, rein.-con. and steel. $45,000. H. Schmidt, pres.

Industrial Works (Continued)

Wis., Mayking (Antigo P. O.)—C. and R. J. Wunderlich Co., Antigo, plans rebuilding electric light plant and dam. $50,000.

Wis., Milwaukee—City plans 2 story pipe storage plant, brick, and concrete, plain foundation. $50,000. C. E. Malig, City Hall, archt.

Wis., Milwaukee—O. Pietsch Dye Wks., 254 West Water St., and H. E. Birkholtz, engr., 216 West Water St., open bids about Nov. 28, (1st unit of plant) 1 story, 120 x 160 ft., brick and steel, plain foundation, 3rd St. $50,000.

Wis., Milwaukee—See "Buildings."

Wis., Milwaukee—M. Tullgren & Sons, archts., 425 East Water St., preparing plans and soon takes bids 1 story, 98 x 123 ft. film storage building, brick and concrete, plain foundation, Wells and 11th Sts., for Republic Investment Co., 160 5th St. $50,000.

Wis., Owen—The E. Z. Box Co. plans 2 story, 60 x 200 ft. factory, brick, rein.-con. and steel, Main St. $170,000. Address G. E. Anderson, c/o Owen Lumber Co., pres. Architect not selected.

Wis., Sheboygan — Wisconsin Mirror Plate Co., 20th and Maryland Sts., had plans prepared by W. C. Weeks, archt., 720 Ontario St., 2 story, 60 x 118 ft. factory, brick, rein.-con. and steel, Indiana St. $150,000.

Wis., Stoughton—Stoughton Wagon Co. plans 1 and 2 story, 75 x 210 ft. factory, brick and rein.-con. factory, Main St. $300,000. F. J. Vea, mgr. Architect not selected.

Ia., Des Moines—F. Rodgers, 615 Clinton St., having plans prepared by F. A. Harris, archt., 3815-4th St., 3 story, 50 x 132 ft. rein.-con., brick and steel garage, 615 Clinton St. $50,000.

Ia., Sioux City—F. M. Pelletier Co., 413 Pierce St., plans 3 story, 75 x 150 ft., rein.-con., brick and stone warehouse. $50,000. Architect not selected.

Kan., Columbus—C. & A. Motor Car Co. plans garage and machine shop on Main St. $50,000. Architect not selected.

Mo., Joplin—Joplin Zinc Products Co., c/o O. Greenstreet, plans 2 story shingle plant and rolling mill, brick and steel. $50,000.

Mo., St. Louis—Ludewig & Drusoerner, archts., 3545 Humphrey St., soon lets contract 3 story, 30 x 75 ft., brick and steel factory, Grand and Clark Sts., for Hartenbach Carpet Cleaning Co. $40,000.

Mo., St. Louis—J. G. Perculers, Jr., 603 Wainwright Bldg., having plans prepared 1 story, 45 x 150 ft., brick and steel garage and machine shop, 5152 Southwest Ave. $45,000. Private plans.

Ont., Bowmanville — Ontario Potteries Ltd. preparing plans concrete and brick factory. $50,000. Private plans.

Ont., Kincardine—F. B. Coombe Furniture Co., plans 3 story, 50 x 80 ft. addition to factory. $50,000.

Ont., Port Elgin—E. Gandier of Teasdall Hosiery Co., London, plans factory, here. $40,000.

Ont., Toronto—Gotfredson—Joyce Corp. Ltd., Walkerville, plans 2 story, rein.-con., brick and steel garage, service station, office and show room, Spadina Ave., here. $100,000. W. H. Leishman, 106 Jarves St., local mgr. Architect not selected.

Ont., Toronto—Toronto Transportation Comn., Ryrie Bldg., plans 1 story concrete, brick and steel additions to car barns on Connaught and Eglington Aves. $200,000. J. B. Carswell, Ryrie Bldg., constr. engr.

BIDS DESIRED

Pa., Phila.—D. D. Cassidy, 1918 North Woodstock St., receiving bids 1 story, 36 x 120 ft. brick and steel garage, plain foundation, 1935 North Woodstock St. $45,000. H. R. Stackhouse, 129 South 15th St., archt.

O., Cleveland—Peoples Transfer Co., 6909 Lexington Ave., taking bids 4 story, 47 x 90 ft., rein.-con. warehouse, East 69th St., and Lexington Ave. $150,000. Allen-Osborn Co., Rose Bldg., archts.

Ill., Rock Island—Nov. 29, by Rock Island Transfer & Storage Co., 124 West 17th St., 4 story, 75 x 100 ft., rein.-con. warehouse. B. L. Burke, pres., Cervin & Horn, Safety Bldg., archt.

Ill., West Chicago—Nov. 29, by E. C. Blake, archt., 810 Davis St., Evanston, 1 story condensing plant, brick and steel, here, for Reid-Murdoch & Co., Clark St. Bridge, Chicago. $40,000.

Wis., Burlington—M. F. White, archt., 68 Wisconsin St., Milwaukee, receiving bids 1 story, 68 x 134 ft. garage, concrete, plain foundation, for J. A. Luke, Burlington. $40,000.

Minn., Minneapolis—Dec. 2, by State Bd. Control, Capitol Bldg., St. Paul, 3 story mines experiment station, rein.-con., brick, tile and stone, at State University. $225,000. D. F. Mullen, secy. C. H. Johnston, 715 Capitol Bank Bldg., St. Paul, archt. Noted Dec. 2.

Mo., St. Louis—Nov. 29, by Adalil Realty Co., c/o P. T. Bierman, Ry. Exch. Bldg., 1 story, 50 x 234 ft., brick and steel garage, Spring and Washington Sts. $55,000. O. J. Popp, Odd Fellows Bldg., archt. Noted Nov. 17.

Mo., St. Louis—Nov. 29, by A. B. Groves, archt., Stock Exch. Bldg., 7 story, 25 x 100 ft., brick and rein.-con. factory, 109 North 12th St., for J. Forshaw Stove & Heating Co., c/o J. Forshaw, pres., 111 North 12th St. $75,000. Noted Oct. 6.

Mo., St. Louis—Nov. 29, by Polar Wave Ice & Fuel Co., Grand and Olive Sts., 2 story, rein.-con., brick and steel plant, Gravois Ave. and Deoolsey St. $500,000. H. G. Clymer, Wainwright Bldg., archt. Noted Oct. 6.

Tex., Kerrville—See "Buildings."

BIDS RECEIVED

O., Columbus—C. E. Steele, secy. Bd. Directors Ohio State University, opened bids Nov. 18, 1 story, 100 x 300 ft., addition to power house, on campus, from E. Elford, 307 East Gay St., $162,900; E. H. Latham Co., 60 East Broad St., $167,122; R. H. Evans Co., Fer-ris Bldg., $178,693. Noted Aug. 4.

CONTRACTS AWARDED

Me., Sanford—Goodall Worsted Co., 1 and 5 story, 235 x 274 ft., combing and spinning mill, to Aberthaw Constr. Co., 27 School St., Boston, $100,000.

Mass., Haverhill—C. M. Hilley Bros. Co., 30 Pleasant St., will build 7 story, brick and rein.-con. factory, plain foundation, Water, Chestnut and School Sts., by day labor. $500,000. Noted Nov. 10.

Mass., Springfield—D. A. Loomis, 1 story, 70 x 145 ft., rein.-con., brick and steel garage, plain foundation, Main St., to Gagnier & Augers, 327 Main St. $40,000.

Conn., Hartford—J. P. Nielson & Co., 86 Maple Ave., will build 2 story, 45 x 90 ft., brick and steel addition to garage, by day labor. $40,000. Private plans.

Conn., New Haven—J. W. Hine, Inc., 88 Commerce St., will build 1 story, 90 x 90 ft., brick, concrete and steel addition to garage, by day labor. $40,000. P. Sellers, 207 Orange St., engr.

Conn., New Haven—Hull Brewing Co., 14 Whiting St., 3½ story, 31 x 60 ft., rein.-con. and brick factory, State St., to Connor & Haggerty, Inc., 172 Norton St. $40,000.

Conn., New Haven—C. P. Judge, 581 State St., 1 story, 80 x 130 ft., brick and steel garage, State St., masonry and steel, etc., to T. F. Conniff, 173 Mansfield St.; carpentry, to M. J. Gibbud Co., 730 Chapel St. $40,000.

N. Y., New York—Family Laundry Corp., 1471 Wilkins Ave., 2 story, brick, steel and concrete laundry, plain foundation, 5th Ave. and 141st St., to J. Zimmerman, 18 East 41st St., $400,000.

N. J., Homestead—Atlas Finishing Co., 3 story, brick, steel and concrete factory, plain foundation, Paterson Plank Rd., to Industrial Eng. Co., 30 Church St., New York, $100,000. Noted Nov. 10.

N. J., Pleasantville—P. E. Flotron Co., Lafayette Bldg., Phila., 3 story, 100 x 130 ft., ice factory, rein.-con., brick and steel, plain foundation, here, to W. S. Schull, 6037 Ellworth St., Phila., $150,000.

Pa., Scranton—Smith & Clark, Water and Tannery Sts., Wilkes Barre, 4 story, 60 x 160 ft. ice cream plant, Wyoming Ave., here, to W. Perry, 116 Putnam St., $90,000; percentage basis. Noted Sept. 1.

Md., Frostburg—D. E. Gunter, 1 story, auto repair and service station, brick and steel here, to Austin Co., Bulletin Bldg., Phila., $48,000.

Wash., D. C.—J. E. Cox, warehouse, to A. L. Smith, Woodward Bldg., cost to exceed $50,000.

Ga., Atlanta—Atlantic Ice & Coal Co., Washington St. Viaduct, 2 story, ice plant rein.-con., on Murphy and Benjiman Sts., to Foundation Co., 3rd Natl. Bank Bldg., $150,000.

O., Warren—Bronx Equipment Co., brick and steel additions to industrial building, plain foundation, to Walker & Curley, 106 Bridge St., Pittsburgh, Pa., $150,000.

Ill., Chicago—P. Gerhardt, archt., 64 West Randolph St., 7 story, 61 x 100 ft. warehouse, brick and stone, 359 Ontario St., to Ebenholtz & Jorgenson Co., 2757 West North Ave., for Barrett & Barrett, c/o architect. $300,000. Noted Aug. 25.

Ill., Waukegan—Wilson & Ohm, 215 South Genesee Ave., 2 story, 50 x 130 ft. garage, brick and steel, to Peterson & Weeks, Waukegan, $45,000.

Wis., Appelton—West End Auto Co., c/o F. I. Phillips, 476 South St., 1 story, 40 x 120 ft. garage, brick, rein.-con. and steel, College St., to Wisconsin Eng. & Constr. Co., Wausau, $65,000.

Wis., Beloit—Morks Garage, P. O. Box 227, 1 story, 50 x 120 ft. garage, brick, rein.-con. and steel, Main St., to W. B. Gates, Walworth, $56,000.

Wis., Milwaukee—F. C. Grass Bros. Co., 133 Muskego Ave., 1 and 2 story, 56 x 145 ft. cold storage plant and warehouse, brick and timber, plain foundation, Muskego Ave., by day labor. $40,000.

Wis., Milwaukee—O. Jaeger Baking Co., 914 Central Ave., 2 story, 50 x 150 ft. storage building, brick and wood, plain foundation, 9th St., to W. Steigerwald & Sons, 2303 Galena St., $60,000.

Cal., Los Angeles—Wilshire Fireproof Storage Co., c/o E. T. Flaherty, archt. and engr., 435 I. W. Hellman Bldg., 8 story, 60 x 100 ft. warehouse, rein.-con., brick and terra cotta, 1st and Western Sts., to C. A. Fellows, Central Bldg., $115,000.

Ont., Toronto—Chapmans Ltd., Kent Bldg., ice plant to W. M. Sutherland Co., Ltd., Lumsden Bldg., $70,000.

Man., Lac Du Bonnet—See "Miscellaneous."

Buildings

PROPOSED WORK

Conn., Hartford — Temple — Bldg. Assn Com., Knights of Pythias, plans 4½ story, 60 x 150 ft., brick, stone, steel and concrete, High St. $400,000. J. K. Baskerville, pres. Berenson & Moses, 1026 Main St., archts. Noted June 23.

Conn., West Haven—Theatre—DeWaltoff Eng. Co. 185 Church St., plans 1 story, 75 x 100 ft., brick, tile and concrete, at Savin Rock. $150,000. Private plans.

N. Y., Brooklyn—School—Holy Rosary Roman Catholic Church, 141 Chauncey St., had plans prepared by Helmle & Corbett, archts. and engrs., 130 West 42nd St., New York, 3 story, brick, steel and stone, plain foundation, Bainbridge St. $250,000.

N. Y., New York—Bank and Office—Bank of United States, 320 5th Ave., soon takes bids 5 story, brick, steel and stone, plain foundation, 1765 Madison Ave. $250,000. L. A. Abramson, 48 West 46th St., archt. and engr. Noted May 26.

N. Y., New York—Hospital—Bronx Jewish Hospital, c/o F. Y. Joannes, archt. and engr., 52 Vanderbilt Ave., soon takes bids brick and stone memorial hospital, Dyckman St., $150,000. Noted Feb. 3.

N. Y., New York—Office and Stores—A. G. Spalding, 126 Nassau St., plans 10 story, Nassau and Ann Sts.

N. Y., New York—Y. M. C. A. plans to build, Sullivan and Richards Sts. $165,000.

N. Y., Syracuse—Hotel—Syracuse Hotel Corp., Burney Bldg., having sketches made by G. B. Post & Sons, archts. and engrs., 101 Park Ave., New York, 11 story, brick, steel and stone, plain foundation, Harrison and Warren Sts. $2,500,000. Noted May 19.

N. J., Jersey City—Apartment—O. H. Albenesius, 2465 Hudson Blvd., plans 12 story, 110 x 130 ft., brick and steel, Gifford Ave. and Hudson Blvd. $800,000. Architect not selected.

N. J., Jersey City—Office and Auditorium—W. Stanton, c/o Jersey City Chamber of Commerce, having plans prepared by W. A. Newman, archt., Palisade Ave., 5 story, 141 x 181 x 141 ft., stone, steel and terra cotta, Montgomery St. and Newark Ave. $250,000.

N. J., Princeton — Chapel — Princeton University having plans prepared by Cram & Ferguson, archts., 15 Beacon St., Boston, for 58 x 270 ft. chapel. $500,000. J. G. Hibben, pres.

N. J., Trenton—Apartment—C. F. Hildebrecht, West State St., having plans prepared by W. Hankin, archt., 39 East State St., apartment, West State St. $560,000.

N. J., Trenton—Schools—Bd. Educ. plans 2 high schools and 1 negro school. $2,000,000. Architect not selected.

Pa., Braddock—Theatre and Office—Crystal Amusement Co., c/o B. Burke, soon takes bids for superstructure and completion foundation, 1 story, 80 x 125 ft., Braddock Ave., $250,000. H. S. Bair, Vandergrift Bldg., Pittsburgh, archt. oNted Sept. 22.

Pa., Gettysburg — Hotel — Eagle Hotel Co. having plans prepared by E. B. Medoff, archt., Lincoln Bldg., Phila., altering and building 4 story, 100 x 175 ft. brick and steel addition, plain foundation, $150,000.

Pa., Scranton—Office—Glen Alden Coal Co., 306 Jefferson Ave., soon lets contract

Buildings (Continued)

6 story, brick, steel and stone, plain foundation. Jefferson Ave. $250,000. K. M. Murchison, 101 Park Ave., New York, engr.

Pa., Stowe—School—Bd. Educ. Stowe Twp. having plans prepared by J. H. Phillips, archt. Fulton Bldg., Pittsburgh, school here. $200,000.

Fla., Jacksonville — Merchantile — Greenleaf & Brosby Co., 41 West Bay St., plans 4 story, (utimately 8 story) 72 x 110 ft. rein.-con. brick and steel. Cost between $150,000 and $200,000.

O., Avon Lake—School—Bd. Educ. having plans prepared by Fulton-Taylor & Cahill, archts., 8120 Euclid Ave., Cleveland, 2 story, 78 x 160 ft., brick, steel and concrete, plain foundation. $150,000.

O., Cleveland—Commercial and Apartment—Continental Constr. Co., c/o E. A. Curtis, archt., 605 Republic Bldg., had plans prepared 3 story, 62 x 80 ft., brick and timber, plain foundation, 9900 Hough Ave. $150,000.

O., Cleveland—Commercial and Office—Chestnut-12th St. Co., c/o W. S. Ferguson & Co., engrs., 1900 Euclid Ave., plans 12 story, brick, steel and concrete, plain foundation, East 12th St. and Chestnut Ave $1,000,000.

O., Greenville—School—Bd. Educ. having plans prepared by Walker & Norwick, archts., Amer. Bdg., Dayton, 2 story, 80 x 200 ft., rein.-con. and brick $150,000.

Ind., DeSoto—School—Bd. Educ., c/o J. Bowers, secy., having plans prepared by Keffer & Jones, archts., Masonic Bldg., Des Moines, 3 story, 65 x 110 ft., brick, stone, rein.-con. and steel. $150,000.

Ind., South Bend—Dance Hall and Store—Palace Theatre Corp., c/o J. S. Aroner & Co., archts., 25 East Jackson Blvd., Chicago, preparing plans and soon takes bids 3 story, 92 x 165 ft., rein.-con., brick and terra cotta. $350,000.

Mich., Grosse Pointe (Detroit P. O.)—Club House—Grosse Pointe Country Club having plans prepared by A. Kahn, archt., 1000 Marquette Bldg., Detroit, 2 story, 40 x 280 ft. rein.-con., brick and steel, plain foundation. $250,000.

Mich., Jackson — Home — Bd. Management having plans prepared by C. Allen & Sons, archts., 402 Dwight Bldg., Jackson, 2 story, 60x64 ft. concrete and brick. $150,000.

Ill., Chicago—Office and Apartment—W. P. Doerr, archt., 28 East Jackson Blvd., preparing plans and soon takes bids 2 story 130 x 166 ft., brick and terra cotta, 79th St.and South Shore, for G. F. Nord and C. Ringer, c/o architect. $150,000.

Ill., Green Valley—High School—Bd. Educ., c/o W. A. Kiefer, pres., having plans prepared by J. Zimmer, archt., Pekin, 2 story, rein.-con., brick, steel and stone. $150,000. Noted Sept. 29.

Ill., Marion—Court House—Bd. Supervs. Williamson Co. having plans prepared by N. S. Spencer & Son, archts., 37 West Van Buren St., Chicago, 3 story, 80 x 100 ft., brick and stone. $200,000. W. D. Sinko, pres.

Ill., Quincy—School—Bd. Educ., c/o G. Gabriel, pres., Musselman Bldg., having plans prepared by E. M. Wood, archt., 126 North 8th St., 3 story, brick and stone, 8th and Maple Sts. $200,000. Noted April 28.

Ill., Savanna—High School—Savanna Twp. High School, c/o L. A. Oyster, secy., 835 Main St., having plans prepared by Ashby-Ashby & Schulze, archts., 1511 West Jackson Blvd., Chicago, 2 story, 70 x 100 ft., rein.-con., brick and stone. $150,000.

Wis., Chippewa Falls—Junior High and Vocational School—School Bd. takes bids about Jan. 1, 2 story, brick and concrete, plain foundation. $175,000. E. O'Neil, chn. building com. E. J. Hancock, Eau Claire, archt.

Wis., Madison—Bank and Office—Commercial Natl. Bank, State St., having plans prepared by A. Moorman & Sons, archts., Chamber Commerce Bldg., St. Paul, Minn., 4 story, 60 x 200 ft., brick, rein.-con. and steel, State St. $200,000.

Wis., Madison—University of Wisconsin Y. M. C. A., 740 Langdon St., plans 4 story, 50 x 250 ft., brick and rein.-con., Langdon St. $150,000. F. Wolf, genl. secy. Architect not selected.

Wis., Milwaukee—Business—R. Razall, archt., 114 Grand Ave., opens bids about Nov. 28, 3 story, 80 x 114 ft. business building and garage, rein.-con. and brick, plain foundation, Bway., for Conro Estate, 902 Wells Bldg. $150,000.

Wis., Milwaukee — Commercial and Science—Marquette University, 1115 Grand Ave., having preliminary plans prepared by A. C. Eschweiler, archt., 141 Wisconsin St., for 4 story, 140 x 210 ft., brick and concrete, plain foundation, 13th St. and Grand Ave. $200,000.

SIPHON PIPES—NEW YORK
Contract 211

Bids were received Nov. 10 (lowest 3) for constructing eight siphon pipes of Catskill Aqueduct in towns of Mt. Pleasant and Greenburg and City of Yonkers, from (A) T. Crimmins Contg. Co., 126 East 59th St.; (B) Booth & Flinn, Ltd., 17 Battery Pl., (C) F. Snare Corp., 8 West 40th St. Contractors all of New York City. The unit bids were as follows:

	A	B	C
35,000 cu.yd. removal of soil	$1.00	$0.60	$1.00
172,000 cu.yd. earth excavation	1.40	.60	1.50
37,000 cu.yd. rock excavation	3.75	2.50	6.50
Stream, highway and railroad crossings (lump sum)	15,000.00	25,000.00	18,000.00
182,000 cu.yd. refilling and embanking	.75	.45	.70
30,000 cu.yd. surface dressing	1.00	.75	1.00
13,840 lin.ft. 11-ft. 3-in. steel pipe, $\frac{7}{16}$-in. plate, lap-joints	34.00	69.50	50.00
470 lin.ft. 11-ft. 3-in. steel pipe, $\frac{1}{2}$-in. plate, lap-joints	40.00	76.50	56.00
4,555 lin.ft. 11-ft. 3-in. steel pipe, $\frac{1}{2}$-in. plate, longitudinal butt-joints	45.00	80.00	59.00
1,085 lin.ft. 11-ft. 3-in. steel pipe, $\frac{9}{16}$-in. plate, longitudinal butt-joints	48.00	83.00	63.00
60,000 lb. steel castings	.20	.20	.15
35,000 lb. steel for reinforcing concrete	.05	.05	.04
15 tons cast-iron pipe and special pipe castings	150.00	170.00	100.00
3,000 lb. miscellaneous bronze, brass, copper and lead	.42	.60	1.00
35,000 lb. miscellaneous cast iron, wrought iron and steel	.11	.12	.08
30,000 lb. galvanizing	.02	.05	.03
60,000 lb. caring for and setting metal-work furnished by the City	.05	.03	.04
1,000 cu.ft. cutting concrete	1.00	1.00	1.00
72,000 bbl. Portland cement	3.50	3.00	3.00
36,800 cu.yd. concrete masonry around steel pipes	10.00	7.00	10.00
1600-cu.yd. concrete masonry for blow-off chambers, culverts, waterways, retaining-walls and other appurtenant structures	15.00	15.00	14.00
300 cu.yd. reinforced concrete	17.00	15.00	20.00
700,000 sq.ft. mortar lining of steel pipes	.15	.20	.20
2,000 cu.yd. dry rubble masonry and paving	3.00	4.00	6.00
400 cu.yd. rubble masonry and paving in mortar or grouted	4.00	6.00	8.00
1,000 cu.yd. crushed stone and gravel	5.00	3.50	3.50
1,500 lin.ft. tile pipe, 6 in. and less in diameter	.40	1.50	.80
1,000 lin.ft. tile pipe, 8 in. to 12 in. in diameter	.73	2.50	1.40
500 lin.ft. tile pipe, larger than 12 in., and not exceeding 24 in. in diameter	2.71	4.00	2.50
350 M. ft.b.m. timber and lumber	80.00	75.00	80.00
Stop-planks (lump sum)	10,000.00	2,000.00	16,000.00
1,000 lin.ft. stone guard walls	2.30	2.50	3.00
1,000 lin.ft. wooden fences and guard-rails	.65	1.00	.60
15,000 lb. wire fences	.16	.06	.30
50 acres seeding and grassing	200.00	150.00	100.00
2,500 sq.ft. engineers' offices	10.00	4.00	5.00
100 medical and surgical practitioners	300.00	200.00	150.00
40 months sanitary services	200.00	200.00	400.00
15,000 lb. chlorinated lime	.01	.04	.05
30,000 lb. liquid chlorine	.10	.07	.12
5 automatic control chlorine dosing machines	3,000.00	2,500.00	2,000.00
Cleaning up (lump sum)	3,300.00	8,000.00	3,000.00
Extended totals	$2,275,360	$2,589,090	$2,679,220

Wis., Racine—Temple—Masonic Temple Assn., c/o F. L. Norton, 1145 Main St., having plans prepared by E. D. Funston Co., archts., 503 Robinson Bldg., 2 and 3 story, 60 x 150 ft., brick, rein.-con. and steel, 1020 Main St. $150,000.

Wis., Sheboygan—Court House—Sheboygan Co., c/o G. W. Leberman, 624 New York Ave., having sketches made by E. A. Stubenrouch, archt., 629 North 8th St., 2 story, 100 x 110 ft., brick, rein.-con. and steel, Center St. $150,000.

Wis., Sheboygan — Hotel — Wisconsin Hotel Co., c/o A. W. Merrit, pres., Hotel Foeste, having plans prepared by E. A. Studenrouch, archt., 629 North 8th St., 4 story, 75 x 139 ft., brick, rein.-con. and steel, 8th St. $160,000.

Wis., Sheboygan—Office—E. A. Juul, archt., 805 North 8th St., takes bids about Dec. 1, 4 story, 168 x 180 ft., brick and rein.-con., Water St., for Phoenix Chair Co., South 12th and Virginia Sts. $150,000.

Ia., Cheston—High School—Bd. Educ. plans 3 story, rein.-con., brick, stone and tile. $200,000. J. V. Richardson, secy. Architect not announced.

Ia., Dubuque—School—Bd. Educ., c/o L. Palen, secy., Business and Insurance Bldg., plans Jackson School, 2 story, rein.-con., brick and stone. $200,000. Architect not selected.

Kan., Osawatomie—Hospital—State, c/o J. A. Kimball, Topeka, rejected bids opened Nov. 8, 2 story, 36 x 234 ft., here. $150,000. R. Gamble, 1415 Fillmore St., Topeka, archt. Noted Oct. 20.

S. D., Canton—High School—Bd. Educ. having plans prepared by Schuemacker & Finlehor, archts., Sioux Falls, 2 story, 160 x 180 ft., rein.-con., brick, stone and steel. $200,000. C. Sandvig, pres.

Mo., Columbia—Science Hall—Stephens College having plans prepared by J. P. Jamieson, archt., Security Bldg., St. Louis, 3 story, 60 x 180 ft., brick, stone and steel. A. Wood, pres. $150,000. Noted Nov. 17.

Mo., Kansas City—Hotel Apartment—Bellerive Investment Co., 111 North 7th St., St. Louis, having plans prepared by P. J. Bradshaw, archt., International Life Bldg., St. Louis, 15 story, 110 x 203 ft., rein.-con., Brick and stone, Armour and Warwick Blvds., here. $1,000,000.

Mo., Maplewood — High School — Bd. Educ., c/o P. M. Brossard, secy., 3500 Cambridge Ave., having plans prepared by W. B. Ittner, archt., Bd. Educ. Bldg., St. Louis, 5 story, rein.-con., brick and stone. $160,000.

Mo., St. Charles—High School—Bd. Educ. plans 2 story, rein.-con., brick and stone. $200,000. Architect not selected.

Mo., St. Louis—Store—L. E. Dorr, 3922 Washington Ave., having plans prepared by P. J. Bradshaw, archt., International Life Bldg., 2 story, brick and terra cotta, De Baliviere and Waterman Aves. $150,000.

Mo., St. Louis—Theatre and Office—C. E. Thimmig, 1662 South Jefferson Ave., having plans prepared by P. J. Bradshaw, archt., International Life Bldg., 12 story, rein.-con., brick and stone, Grand and Washington Sts. $1,500,000.

Cal., Pasadena—High School—Bd. Educ. plans group of 4 buildings, Pennsylvania St. and Raymond Ave. $500,000. Allison & Allison, 1405 Hibernian Bldg., Los Angeles, archts.

Que., Hull — Exchange — Bell Telephone Co. of Canada, 118 Notre Dame St. W., Montreal, plans exchange, here. $240,000. J. A. Gorrie, Queen St., Ottawa, Ont., mrg. Architect not selected.

Ont., Hamilton—School—Bd. Educ. having plans prepared by F. W. Warren, archt., Home Bank Bldg., 15 room, rein.-con., brick and steel. $300,000.

BIDS DESIRED

N. Y., New York—Apartments—Bainbridge Constr. Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., two 5 story, brick, steel and stone, plain foundations, 188th St. and University Ave. $160,000 each. Work will be done by separate contracts.

N. Y., New York — Apartment — Nine Twenty 5th Ave. Corp., c/o J. E. Carpenter, archt. and engr., 681 5th Ave., 13 story, brick, steel and stone, plain foundation, 5th Ave. and 73rd St. $700,000. Work will be done by separate contracts.

N. Y., New York—Store and Office, etc.—Herald Sq. Press Bldg., c/o Schwartz & Gross, archts. and engrs., 347 5th Ave., brick, steel and stone store, office and factory plain foundation, 313-321 West 27th St. $400,000. Work will be done by separate contracts.

N. J., Glassboro—Normal School—Dec. 6, by Comn. of Educ., State House, Trenton, 2 story, 185 x 268 ft., rein.-con., brick and steel, concrete pile foundation, here. $500,000. Guilbert & Betelle, 546 Broad St., Newark, and A. H. Moses, Merchantville, archt. Noted May 12.

D. C., Wash.—Temple—Cutler & Moss, archts., 13th St. and New York Ave., receiving bids for temple, 10th and U Sts.,

Buildings (Continued)

for New Masonic Hall Corp., c/o architects, $400,000.

O., Castalia—High School—Dec. 15, by Bd. Educ., 2 story, 103 x 106 ft., brick, steel and concrete, plain foundation. $200,000. F. L. Packard, New Hayden Bldg., Columbus, archt. Noted Feb. 10.

Mich., Detroit—School—Dec. 6, by Bd. Educ., 2 story, 80 x 125 ft. addition to Stephens School, rein.-con., brick and steel, plain foundation, Lambert and Seneca Aves. $150,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., archts.

Mich., Kalmazoo — School — Dec. 5, by Bd. Educ., 2 story, concrete, brick, steel and stone, plain foundation, Portage St. $150,000. Billingham & Cobb., Press Blk., archts.

Mich., Kalmazoo—High School—Dec. 12, by Bd. Educ., 2 story, rein.-con., brick and steel addition, plain foundation. $200,000. Robinson & Campau, 715 Michigan Trust Bldg., Grand Rapids, archts.

Ill., Amboy—High School—Nov. 29, by J. W. Coleman, archt., 6257 St. Lawrence Ave., Chicago, 2 story, 107 x 189 ft., rein.-con., brick, steel and stone, for Bd. Educ. $250,000. Noted Nov. 3.

Minn., Minneapolis—Junior High School—Dec. 9, by Bd. Educ., 3 story, 218 x 230 ft., rein.-con., brick, tile and stone, Clinton Ave. and 38th St. $600,000. E. G. Womrath, business supt. E. H. Enger, 305 City Hall, engr.

Neb., McCook — Hospital — Dec. 1, by Archer & Goud, archts., Reliance Bldg., Kansas City, Mo., 3 story, 40 x 112 ft., rein.-con., brick and stone, for St. Patricks Roman Catholic Church, here. $150,000. Noted Sept. 29.

Kan., Eldorado—School—Dec. 23, by Baptist Church Congregation, c/o M. Clemmons, pastor, 3 story, 100 x 100 ft., brick, stone and steel. $150,000. J. H. Felt, Grand Ave. Temple, Kansas City, Mo., archt.

Kan., Independence—High School—Dec. 15, by N. S. Spencer, archt., 37 West Van Buren St., Chicago, 3 story, 180 x 235 ft., rein.-con., steel and brick, for Bd. Educ. $400,000.

Tex., Kerrville—Sanitorium—Dec. 5, by S. B. Cowell, chn. State Bd. Control, Austin, (3rd unit Amer. Legion Memorial Sanitorium), incl. 2 story infirmary, 1 story laundry, 2 story nurses home, 1 story boiler house, all brick tile and concrete; and 155 ft. concrete smoke stack, etc. $650,000. Phelps & Dewees, Gunter Bldg., San Antonio, engrs.

Col., Denver — Hall — H. J. Manning archt., Majestic Bldg., receiving bids, 3 story, 150 x 180 ft., on West 50th Ave. and Lowell Blvd., for Society of Jesuits. $300,000. Noted Sept. 8.

Cal., Coronado — (San Diego P. O.) — Apartment—S. B. Fry, receiving bids 4 story, 110 x 165 ft., 4th and Orange Sts. $200,000. L. J. Gill, 222 Owl Bldg., San Diego, archt.

BIDS RECEIVED

Mass., Boston—Municipal—Bldg. Dept., 3 story, 40 x 230 ft., brick, Commercial St., from M. Seretto, 3 Tremont Row, $186,400; F. G. Coburn, Old South Bldg., $202,984; Coblo & Griffin, 46 Cornhill St., $207,000. Noted Nov. 10.

O., Canton—High School—Bd. Educ. opened bids Nov. 2, 3 story, 144 x 226 ft., brick, steel and concrete, plain foundation, 6th St., from A. F. Wendling Co., Massillon, $811,827; R. H. Evans Co., Swan and High Sts., Columbus, $822,000. Noted Oct. 27.

O., Columbus—University—C. E. Steele, secy. Bd. Directors, Ohio State University, opened bids Nov. 18, (1a) 3 story, 94 x 140 ft. addition to physics building, (b) alternate, additional story on present physics building, (2) 4 story, 40 x 150 ft. girls' dormitory (Mack Hall), (3) 3 story, 60 x 100 ft. addition to Brown Hall, from E. Elford, 307 East Gay St., (1a) $67,884, (b) $63,053, (2) $143,700, (3) $84,370; R. H. Evans, Ferris Bldg., (1a) $68,302, (1b) $62,323, (3) $91,496; E. Latham Co., 60 East Broad St., (1a) $69,064; D. W. McGrath & Sons, New 1st Natl. Bank Bldg., (1b) $55,818, (3) $89,980; E. E. Beckett, 265 Oakland Ave., (2) $121,720; Le Vegue Co., (2) $133,200. Noted Aug. 4.

CONTRACTS AWARDED

Mass., Chelsea (Boston P. O.)—Hebrew Free School, 2 story, 100 x 100 ft., brick and steel, plain foundation, Washington St., to L. Martiniello, 48 Dighton St., Brighton. $150,000. Noted June 16.

N. Y., New York—Apartment—One Fourteen West 70th St. Corp., c/o Somerfield & Steckler, archts. and engrs., 31 Union Sq., 9 story, brick, steel and stone, plain foundation, 114 West 70th St., by day labor. $450,000.

Pa., Phila.—Office—Sweeten Automobile Co., Parkway Bldg., brick, steel and stone, plain foundation, Broad and Cherry Sts., to Irwin & Leighton, 126 North 12th St., $800,000.

D. C., Wash.—Apartment—A. J. Howard, 931 G St., N.W., apartment at 16th and U Sts., N.W., to F. H. Gore, 4409 39th St., N.W. $150,000.

D. C., Wash.—Bank—Farmers and Mechanics Natl. Bank of Georgetown, bank, to W. P. Lipscomb Co., Dist. Bank Bldg. $150,000. Noted June 23.

Mich., Detroit — Apartment — Chippewa Apartment Co., c/o J. W. Wilson, archt., 750 David Whitney Bldg., 7 story rein.-con., brick and stone, plain foundation, Parker and Agnes Aves., masonry to O. Misch Co., Detroit Savings Bank Bldg. Total, $750,000.

Ill., Champaign—Hospital—J. M. White, archt., c/o University of Illinois, 3 story, 102 x 109 ft. addition to Burhan Hospital, to North Raffin Constr. Co., 914 Chestnut St., Terre Haute, Ind., for Bd. Trustees, c/o F. Isner. $200,000. Noted Nov. 10.

Ill., Peoria—School—Bd. Educ. c/o G. Mitchell, pres., 2 story, rear addition to manual training school, rein.-con., brick, steel and tile, to W. Allen & Son, Jefferson Bldg., $225,000. Noted Oct. 13.

Wis., Birchwood — High School — Bd. Educ., 2 story, 65 x 105 ft., brick, tile and steel, to Schafer & Olson, Main St., Chippewa Falls, $150,000. Noted Oct. 27.

Wis., Manitowoc—Club House, etc.—Eagles Club Co., 1114 South Main St., 4 story, 110 x 200 ft., brick, rein.-con. and steel, to E. R. Herman, 1402 Hamilton St., $250,000. Noted Sept. 15.

Ia., Davenport—College St. Ambrose College, 518 West Locust St., 4 story, brick, rein-con. and stone, to Blunk & Joehnke, Davenport, $150,000. Noted Sept. 15.

Kan., Wellington—Auditorium—City 2 story 120 x 190 ft., to J. H. Mitchell & Son, Wellington, $200,000. Noted Oct. 20.

Mo., St. Louis — College — H. P. Hess, archt., 4811 Cote Brilliante Ace., 3 story, 172 x 248 ft., rein.-con. and brick, Clayton Rd. and University Lane, to Kellerman Constr. Co., Victoria Bldg., for Christian Bros. College. $500,000. Noted Oct. 6.

Ore., Portland—High School—Bd. Educ., 2 story, James John High School, brick, Smith and Center Aves., Ida and Burr Sts., to G. Isackson, 1013 East Irving St., $189,106; heating to Dauch Heating & Eng. Co., 348 East Burnside St., $48,000.

Cal., San Diego—Apartment—J. E. Collumb, Spreckels Bldg., will build 4 story, 70 x 200 ft., rein.-con. and brick, 4th and Kalmia Sts., by day labor, $200,000. E. M. Hoffman, 408 Spreckels Bldg., archt.

Ont., Toronto—School—Bd. Educ., 155 College St., 2 story, 10 rooms, rein.-con., brick, steel and stone, Rose Ave., masonry contract to R. Chalkley & Son, 34 Victoria St., $70,948, carpentry to F. Armstrong, 89 Oak St., $33,069, plumbing and heating to Mechanical Trades Ltd., 54 University Ave., $32,985. Total $175,000.

Federal Government Work

BIDS DESIRED

N. J., New Brunswick—Loading Shed, etc.—Dec. 5, Treas. Dept., Wash., D. C., loading shed, mailing vestibule, etc., at U. S. Post Office, here. J. A. Wetmore, acting superv. archt.

Va., Norfolk—Dredging—Spec. 4553—Dec. 7, by Bureau Yards & Docks, Navy Dept., Wash., D. C., dredging in harbor, here; adv. this issue. Noted Nov. 17.

N. C., Oteen—Changes to Services, etc.—Dec. 6, by Treas. Dept., Wash., D. C., changes to services, etc., at U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt.; adv. this issue.

S. C., Columbia—Alterations—Dec. 13, by Treas. Dept., Wash., D. C., alterations to U. S. Post Office and Court House, here. J. A. Wetmore, acting superv. archt.; adv. this issue.

O., Dayton—Home—Nov. 29, at Office Bd. Mgrs. Natl. Home for Disabled Soldiers, 2 story, with five wings, 40 x 49 ft., 92 x 120 ft., 29 x 56 ft., 29 x 156 ft. and 36 x 247 ft. $750,000. Schenck & Williams, Mutual Life Bldg., archts.

Cal., Mare Island—Ovens—Spec. 4540—Nov. 30, by Pub. Wks. Office, Navy Yard, here, for 2 Dutch bake ovens at Marine Barracks, here. C. W. Parks, ch. of bureau. Noted Oct. 20.

BIDS RECEIVED

Md., Perryville—Millwork—Treas. Dept., Wash., D. C., millwork at U. S. Pub. Health Serv. Hospital, here, from O. Duker & Co., Fleet & Albermarle Sts., Baltimore, $19,387; Williamsport Planing Mill Co., Hibbs Bldg., Wash., D. C., $21,300; Amer. Woodworking Corp., 5 Uhler St., Baltimore, $23,333. Noted Aug. 11.

D. C., Bellevue—Chimney—Spec. 4534—Bureau Yards & Docks, Navy Dept., Wash., chimney at Naval Experimental and Research Laboratory, here, (1) work complete, from Rust Eng Co., 406 G St., N.W., Wash., (1) $6,307 (70 days) (2) $5,743 (70 days); H. R. Heinecke, Inc., 540 North Meridian St., Indianapolis, Ind., (1) $6,950 (90 days); M. W. Kellog Co., 90 West St., New York, (1) $6,884 (90 days). Noted Nov. 3.

Tenn., Nashville—Derrick Boat—U. S. Engineer, Custom House, derrick boat, from Dravo Contg. Co., Diamond Bank Bldg., Pittsburgh, Pa., $11,785. Noted Nov. 3.

Ariz., Prescott—Mechanical Equipment—Treas. Dept., Wash., D. C., mechanical equipment for U. S. Pub. Health Serv. Hospital 50, Whipple Barracks, here, from W. Wilby, Sema, Ala., $99,800; Noland-Clifford Inc., 322 28th St., Newport News, Va., $119,437; C. E. Monday, 1318 Olive St., Phila., Pa., $121,500. Noted Oct. 27.

CONTRACTS AWARDED

Ariz., Prescott—Quarters—Treas. Dept., Wash., D. C., 4 double quarters for officers, 1 double quarters for first class personnel, 1 quarter for married attendants, at U. S. Pub. Health Serv. Hospital 50, Whipple Barracks, here, to W. Simpson Constr. Co., 526 Marsh-Strong Bldg., Los Angeles, Cal., $189,995. Noted Nov. 17.

Miscellaneous

PROPOSED WORK

Shafts and Tunnel—Jersey City, N. J.—New York State Bridge & Tunnel Comn. and New Jersey Interstate Bridge & Tunnel Comn., Room 617, Hall of Records, New York, take bids in December for land shafts and vehicular tunnel under Hudson River. Former bids for land shafts rejected. Noted July 21.

Pier—Wildwood, N. J.—Serpentine Ry. Co., 2016 West Lippincott St., Phila., plans 200 x 400 ft. concrete and timber amusement pier, here. $250,000. S. G. Matthews, 2016 West Lippincott St., Phila., engr.

Elimination of Grade Crossing—Cleveland, O.—Plans grade crossing over C. & P. and Wheeling & Lake Erie R.R. tracks on Bway., in Garfield Heights. $350,000. R. Hoffman, City Hall, engr.

Disposal Apparatus—Racine, Wis.—City, c/o E. F. Hilker, sanitary engr., 319 Lafayette Ave., plans additional garbage disposal apparatus in incinerator.

Lighting and Power System—Belmont, Ont.—Dorchester Twp. plans power lines, here, Nilestown and Harrietsville. $90,000. J. N. Wilson, 90 University Ave., Toronto, engr.

BIDS DESIRED

Electric Wiring, etc.—N. Y., Brooklyn—Dec. 20, by C L. Cadlefi supt. Pub. Wks., Capitol, Albany, electric wiring, power and battery charging equipment, in canal trerminal warehouse, Gowanus Bay, here, Contr. 115. $58,915; Adv. this issue.

Enclosures—Brooklyn, N. Y.—Dec. 5, by Transit Comn., 49 Lafayette St., New York, enclosure for inspection shed and its appurtenances in Livonia Ave. Yard of Route 31, part of Eastern Parkway Rapid Transit R.R., here. G. McAneny, chn.

Binder Stone—New York, N. Y.—Nov. 30, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., furnishing and delivering 1,200 cu.yd. binder stone and 200,000 wood paving blocks.

Supplies—Toronto, Ont.—Nov. 29, by T. L. Church, mayor, City Hall, annual supply of brass and bronze castings, brass work for house services, c.i. pipes, hydrants, pipe, fittings and valves, lead pipe, special castings, stop valves, refined asphalt, vitr. paving blocks, treated wood blocks, sewer brick, iron castings, manholes, gulleys and grates, cement, mineral dust, general supplies, gravel, granite sets, iron and steel, oils, sewer pipe, trap rock, sand, crushed stone and rubble stone. $150,000. R. C. Harris, city engr.

CONTRACTS AWARDED

Subway—Glenwood, Ia.—Mills Co., rein.-con. subway under double tracks of main line of Chicago, Burlington & Quincy R.R., to G. W. Condon, 510 Farnham Bldg., Omaha, $31,500.

Hydro Electric Development—Lac Du Bonnet—Manitoba Power Co., Ltd., Electric Ry. Chambers, Winnipeg, hydro electric development on Winnipeg River, at Great Falls, near here, 168,000 hp., incl. 130 x 400 ft. power house, to Northern Constr. Co., Union Bank Bldg., Winnipeg, and Fraser-Brace Ltd., 83 Craig St. W., Montreal, Que., total $10,000,000. Contract let for about 50% of project.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 5	Syracuse, N. Y.	Nov. 24
Dec. 5	Buffalo, N. Y.	Nov. 24
Dec. 5	St. Paul, Minn.	Dec. 1
Dec. 9	Cleveland, O.	Dec. 1
Dec. 13	Lincoln, Neb.	Dec. 1
Dec. 14	Reading, Pa.	Dec. 1
Dec. 15	Yakima, Wash.	Dec. 1
	Adv. Dec. 1.	
Dec. 16	Cleveland, O.	Nov. 24
	Adv. Dec. 1.	

SEWERS

Dec. 5	Columbia, Mo.	Nov. 24
Dec. 6	Urbana, Ill.	Dec. 1
Dec. 6	Rutherford, N. J.	Nov. 24
Dec. 6	St. Joseph, Mo.	Dec. 1
Dec. 9	Akron, O.	Dec. 1
Dec. 13	Harrison, N. J.	Nov. 17
Dec. 13	Richmond, Va.	Dec. 1
	Adv. Dec. 1.	
Dec. 20	Passaic, N. J.	Nov. 24

BRIDGES

Dec. 5	California	Dec. 1
Dec. 6	Del Rio, Tex.	Nov. 24
Dec. 8	Morgantown, W. Va.	Nov. 17
Dec. 9	North Carolina	Nov. 24
Dec. 10	Madison, W. Va.	Nov. 17
Dec. 10	Bradentown, Fla.	Dec. 1
Dec. 10	Pikeville, Ky.	Dec. 1
	Adv. Nov. 24 and Dec. 1.	
Dec. 13	Phila., Pa.	Nov. 17
	Adv. Nov. 13, 17 and Dec. 1.	
Dec. 19	Phila., Pa.	Nov. 17
Dec. 22	Madison, Wis.	Dec. 1

DAMS

Dec. 17	Phoenix, Ariz.	Nov. 17

RAILWAYS

Dec. 20	Ontario	Dec. 1

EXCAVATION AND DREDGING

Dec. 5	Yankton S. D.	Nov. 17
Dec. 6	Duluth, Minn.	Nov. 24
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Dec. 5	California	Nov. 24
Dec. 5	Santa Barbara, Cal.	Nov. 24
Dec. 5	Greenville, Tex.	Nov. 24
Dec. 6	Springfield, Ill.	Dec. 1
Dec. 6	Effingham, Ill.	Dec. 1
Dec. 6	Tampa, Fla.	Dec. 1
Dec. 6	Orangeburg, S. C.	Dec. 1
Dec. 6	New York, N. Y.	Dec. 1
Dec. 6	Gastonia, N. C.	Nov. 17
Dec. 6	Del Rio, Tex.	Nov. 24
Dec. 6	Calexico, Cal.	Nov. 24
Dec. 7	Ventura, Cal.	Nov. 24
Dec. 7	Salina, Kan.	Nov. 3
Dec. 8	Forest City, Ia.	Dec. 1
Dec. 8	Lapeer, Mich.	Dec. 1
Dec. 9	Minnesota	Nov. 24
Dec. 9	North Carolina	Dec. 1
Dec. 10	Florida	Dec. 1
Dec. 10	Bradentown, Fla.	Dec. 1
Dec. 12	Washington	Dec. 1
Dec. 12	California	Dec. 1
Dec. 13	Morton, Wash.	Dec. 1
Dec. 13	Florence, S. C.	Dec. 1
	Adv. Dec. 1.	
Dec. 13	Atchinson, Kan.	Nov. 17
Dec. 13	Dunedin, Fla.	Nov. 24
Dec. 14	Rhode Island	Dec. 1
	Adv. Dec. 1.	
Dec. 15	Huntington, W. Va.	Dec. 1
Dec. 16	West Virginia,	Nov. 24
	Adv. Nov. 24 and Dec. 1.	
Dec. 19	Greenfield, Ind.	Dec. 1
Dec. 19	El Centro, Cal.	Dec. 1
Dec. 19	Elmhurst, Ill.	Nov. 17
Dec. 20	Kansas City, Kan.	Nov. 17
Dec. 21	Little Falls, Minn.	Nov. 24
Dec. 23	Iola, Kan.	Nov. 24

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Dec. 2	Portland, Me.	Dec. 1
Dec. 6	Chicago, Ill.	Dec. 1
Dec. 10	Conshohocken, Pa.	Dec. 1
Dec. 10	Phila., Pa.	Dec. 1
Dec. 15	Lansing, Mich.	Dec. 1
	Adv. Dec. 1.	

BUILDINGS

Dec. 3	Baltimore, Md.	Dec. 1
Dec. 5	Kerrville, Tex.	Nov. 24
Dec. 5	Palmyra, N. J.	Nov. 10
Dec. 5	Kalamazoo, Mich.	Nov. 24
Dec. 6	Thiells, N. Y.	Nov. 17
Dec. 6	Glassboro, N. J.	Nov. 24
Dec. 6	Detroit, Mich.	Nov. 24
Dec. 6	Chicago, Ill.	Nov. 24
Dec. 7	New York, N. Y.	Dec. 1
Dec. 7	Brooklyn, N. Y.	Dec. 1
Dec. 7	Saginaw, Mich.	Nov. 17
Dec. 9	Minneapolis, Minn.	Nov. 24
Dec. 10	St. Paul, Minn.	Dec. 1
Dec. 10	Gainesville, Fla.	Nov. 10
Dec. 12	North Robinson, O.	Dec. 1
Dec. 12	Tallahassee, Fla.	Nov. 17
Dec. 12	Kalamazoo, Mich.	Nov. 24
Dec. 12	Aspinwall (Pittsburgh P. O.), Pa.	Dec. 1
Dec. 14	Huron, S. D.	Nov. 17
Dec. 15	Plymouth, Pa.	Dec. 1
Dec. 15	Dayton, O.	Nov. 17
Dec. 15	Lawrence, Mass.	Nov. 17
Dec. 15	Delavan, Ill.	Dec. 1
Dec. 15	Independence, Kan.	Nov. 24
Dec. 15	Castalia, O.	Nov. 24
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Dec. 23	Eldorado, Kan.	Nov. 24
Jan. 1	Detroit, Mich.	Nov. 17
Jan. 15	Laramie, Wyo.	Sept. 29
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Dec. 5	Loading Shed, etc—Brunswick, N. J.	Nov. 24
Dec. 6	Changes to Services, etc—Oteen, N. C.	Nov. 24
Dec. 7	Storehouse—Pearl Harbor, H. T.	Oct. 6
Dec. 7	Dredging—Norfolk, Va.	Nov. 24
	Adv. Nov. 24 and Dec. 1.	
Dec. 13	Alterations — Columbia, S. C.	Nov. 24
Dec. 14	Quarters—Savannah, Ga.	Dec. 1
Dec. 15	Hospital—Marion, Ind.	Dec. 1
Dec. 19	Hospital—Milwaukee, Wis.	Dec. 1
Dec. 28	Valve—Denver, Col.	Nov. 17
Dec. 29	Structures—Savage, Mont.	Nov. 17

MISCELLANEOUS

Dec. 5	Enclosures—Brooklyn N. Y.	Nov. 24
Dec. 8	Highway and Roofing Materials, etc. — New York, N. Y.	Dec. 1
Dec. 20	Electric Wiring, etc—Brooklyn, N. Y.	Nov. 24
	Adv. Nov. 24 and Dec. 1.	
Dec. 21	Sanitary Work—Binghamton, N. Y.	Dec. 1
	Adv. Dec. 1.	
Dec. 23	Oil Tanks and Boilers—New Orleans, La.	Nov. 3
	Adv. Nov. 3 to Dec. 1.	

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., Saltaire (Summer P. O.)—Retained G. L. Watson, consult. engr., 16 East 41st St., New York, to prepare plans for distribution system, pumping station, tower and tank.

Pa., Sharon—Plans large reservoir. L. Burnside, city engr.

W. Va., Grafton—City retained B. Kress, city engr. of Elkins, to report on, design and supervise construction 3,000,000 gal. filtration plant, pumping plant, 2,000,000 gal. reservoir and 3 mi. c.i. mains. $200,000.

Fla., Williston—Dec. 28, to vote on $35,000 bonds for water and electric light plant. C. S. Scarsborough, clk.

Ind., Marion—Take bids about first of year, altering pumping station, incl. new 5,000,000 gal. steam pump. $75,000. Alvord & Burdick, 8 South Dearborn St., Chicago, engrs.

Ill., Lyons—Making plans reservoir, pumping station and 4-6 in. c.i. mains. $40,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.

Ill., Silvis—Plans 4-6 in. c.i. mains and 8-10 in. glazed tile sewers. $26,000. H. Sleeth, mayor. Engineer not selected.

Wis., Clintonville—Making plans improving and extending mains and system, also new reservoir. $26,000. L. P. Pelishek, Clintonville, engr.

Wis., Williams Bay—Making preliminary plans new water supply system, incl. elevated steel tank, pumping station, equipment and mains. W. S. Shields, 8 South Dearborn St., Chicago, engr.

Kan., McCracken—Making plans new mains and extension of reservoir and pumping station. $55,000. Ruckel Eng. Co., Hutchinson, engrs.

Minn., Norwood—To vote on $70,000 bonds for waterworks and sewerage systems. Engineer not selected.

N. D., Casselton—Plans waterworks and sewerage system. $65,000. C. D. Smith, aud. Engineer not selected.

S. D., Frederick — Making plans reservoir, pumping station and mains. $40,000. J. A. Rowatt, Tallman Bldg., Willmar, Minn., engr.

Wyo., Greybull—Soon receives bids 200,000 gal. elevated steel tank, 28,030 ft. 2-8 in. mains, etc. $70,000. Former contract rescinded. G. W. Zorn, Greybull, engr. Noted Oct. 20.

Wyo., Lander—Dec. 12, to vote on $145,000 bonds to extend water conduit, incl. 9,160 ft. 12 in. c.i. pipe.

Mo., Burlington Junction—Election about Nov. 30, to vote on $39,000 bonds, mains and sewers. E. I. Archer Co., New England Bldg., Kansas City, engrs.

Mo., Oak Grove—Voted $40,000 bonds waterworks. B. E. Woolsey, mayor. Engineer not selected.

Tex., Jacksonville—Plans $150,000 bond issue, extensions to waterworks. Address Mayor.

Tex., Robstown—Water Impvt. Dist. 3, voted $300,000 bonds for following work, waterworks system $85,685, irrigation system proper, incl. canals, ditches and structures, $74,743; pumping plant and relift station, $103,672. Area embraces 4,900 acres, to obtain water from the Nueces River. Walton & Arneson, Gunter Bldg., San Antonio, engrs.

Okla., Fairland—Defeated $60,000 bonds for waterworks. H. G. Olmstead & Co., Tradesman Bank Bldg., Pawhuska, engrs. Noted Sept. 29.

Okla., Oklahoma City—Defeated bonds for improving waterworks. B. M. Hart, city engr. Noted Oct. 27.

Ore., McMinnville—Plans reservoir 6,000 acre ft., appropriate 35 second ft. water through tunnel, and 5 mi. pipe line, head of 1,460 ft. for development of 58,070 h.p. $350,000.

Ore., Myrtle Point—Plans 5¼ mi. pipe line and storage reservoir. $22,500. Baar & Cunningham, Spalding Bldg., Portland, engrs.

Wash., Walla Walla—Having plans prepared and takes bids about Jan. 1, reservoir, 2 mi. 24 in. steel pipe, diversion dam and 4 mi. gravity pipe line. $500,000. W. R. Rehorn, city engr.

BIDS DESIRED

Pa. Reading—Dec. 14, pumping station equipment. E. L. Nuebling, ch. engr., Bureau of Water; adv. this issue.

O., Cleveland—Dec. 9, four water tube boilers and mechanical stokers for Division of Water. $400,000. A. V. Ruggles, City Hall, engr.

Waterworks (Continued)

Mich., Detroit—Bd. Water Comrs., Jefferson and Randolph Sts., receiving bids two 3½ ton gasoline operated cranes.

Wash., Yakima—Dec. 15, by City Commission, for pipe line system, etc. C. F. Wilson, city engr.; adv. this issue.

Minn., St. Paul—Dec. 5, by H. W. Austin, city purch. agt., 7,500 bbl. cement, 2,500 cu.yd. silicia sand and 5,000 cu.yd. gravel for Waterworks Dept. O. Claussen, city engr.

Neb., Lincoln—Dec. 13, by T. H. Berg, city clk., one 1,000 hp. economizer, chain grate stokers and superheater for two 500 hp. boilers, 1 open fed water heater, 1 hot process water softener, 1 centrifugal motor driven boiler feed pump and 2 soot blowers for water and electric light plant. $42,000. G. W. Bates, city engr.

CONTRACTS AWARDED

New York—Bd. Water Supply, Municipal Bldg., Park Row, Centre and Chambers Sts., New York, siphon pipes of Catskill Aqueduct, in towns of Olive and New Windsor, Contr. 209, to Rice & Ganey, Inc., 2786 Bainbridge Ave., New York, $999,000; in towns of Phillipstown, Cortlandt, Yorktown and Mt. Pleasant, Contr. 210, to F. Snare, 8 West 40th St., New York, $2,978,000; in towns of Mt. Pleasant, Greenburg and Yonkers, Contr. 211, to T. Crimmins Contg. Co., 126 East 59th St., New York, $2,275,000. Noted Nov. 17.

N. Y., Brooklyn — N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, mains and appurtenances in Surf Ave., Kings Highway, 75th and 78th Sts., here, to J. A. Gregory, 351 East 124th St., New York. $71,502. Noted Nov. 24.

Pa., Phila.—For laying water pipe, to G. F. Dobbins, 4615 Springfield Ave., $33,238; foundations and construction at Shawmut pumping station, to Connor & Leigh, 1317 Arch St., $51,795; laying pipe from Lardners Point pumping station, to Curtiss Bros., Tacony Bank Bldg., $20,990; laying water pipe in various streets, to W. and J. B. McHugh, 32nd and Oxford Sts., $47,000; furnishing pipe, to R. D. Wood & Co., 400 Chestnut St., $57,854; furnishing and installing electrical equipment for Belmont and Roxboro pumping stations, to Seneca Co., 63 Park Row, New York, $140,854. Noted Nov. 10.

Ky., Ashland—For 3,000,000 gal. water filtration plant and 500,000 gal. reservoir; construction to Ellington, Miller Co., 417 South Dearborn St., Chicago; pump to De Laval Co., North Clinton St., Trenton, N. J.; filtration plant equipment to International Filter Co., 38 South Dearborn St., Chicago. Noted Oct. 20.

Ill., Galesburg—Will build 4-6 in c.i. mains by day labor. $100,000. Noted June 23.

Ill., Moline—For 6 in. c.i. mains, to Moline Heating & Constr. Co., 320 16th St., $28,000.

Ia., Stanton—Extension to waterworks, to Dunnegan & Briggs, Shenandoah, $27,500.

Sewers

PROPOSED WORK

Fla., Lakeland—Making plans extending sewerage system. $150,000. G. D. Mendenhall, Lakeland, engr.

Ky., Louisville—Voted $2,000,000 bonds for extending sewerage system. J. B. Breed, Louisville, chn. engr. H. P. Eddy, Louisville, advisory engr.

Ky., Paducah—Soon takes bids 10 mi. sewers, probably concrete. $600,000. Alvord & Burdick, 8 South Dearborn St., Chicago, Ill., engrs. Noted Nov. 24.

O., Akron—Plans to sell $200,000 bonds for sewers. J. E. Root, 300 Delaware Bldg., engr.

O., Cleveland—Plans Henniger Rd. sanitary outlet to Big Creek, intercepting sewer from Threadway Ave. to Big Creek, Jennings Rd. relief sewer at Spring Rd., Muriel Ave. sewer outlet; sewers in Lake Shore Blvd., Pearl, Rosecliff and Fairmount Rds., Roseland, Seymour, Taft, Waterson, Grant and Gruss Aves., West 51st, East 127th, East 128th, East 136th, East 144th, East 167th, East 168th and East 169th Sts. R. Hoffman, City Hall, engr.

Ill., Kewanee—Making plans intercepting sewers and disposal plant. $400,000. J. Palmer, city engr.

Ill., Roodhouse—Making plans storm and sanitary sewers and disposal plant. $40,000. Caldwell Eng. Co., Ayers Bank Bldg., Jacksonville, engrs.

Ill., Silvis—See "Waterworks."

Wis., Appleton—Making plans 1.1 mi. 6-12 in. storm sewers in Newberry and Weimar Sts. $25,000. O. A. Weissgerber, City Hall, engr.

Wis., Spooner—Had plans prepared for sewerage system. $100,000. L. P. Wolff, 1001 Guardian Life Bldg., St. Paul, Minn., engr.

Wis., West Bend — Making preliminary plans for storm sewers in 5th, 4th, 6th and Forest Aves., Maple, Chestnut and Walnut Sts., 5,310 ft. 12-30 in. vitr. pipe. $25,000. J. P. Heipp, City Hall, engr.

Minn., Lake City—Making plans sewerage system. $100,000. L. P. Wolff, 1001 Guardian Life Bldg., St. Paul, engr.

Minn., Little Falls—Plans trunk sewer. $40,000. C. L. Pillsbury Co., 1206 2nd Ave., S., Minneapolis, engrs.

Minn., Norwood—"See Waterworks."

Neb., Grand Island—Having plans prepared sanitary and storm sewers and disposal plant. $100,000. H. E. Clifford, clk. W. E. Buell & Co., Davis Bldg., Sioux City, Ia., engrs.

Okla., Oklahoma City—Defeated bonds for sewers and disposal plant. B. M. Hart, city engr. Noted Oct. 27.

Ont., Brantford—Making plans sanitary sewers in Grey and Mailland Sts., storm sewers in Eagle and St. Paul Aves., Colbourne St., W., Grey, Nelson, Margaretta and Marlboro Sts., $30,694. F. P. Adams, city engr.

Ont., Hamilton—Plans 2,000 ft. concrete sewer in Paradise Rd. from King St. northerly. $150,000. E. R. Gray, city engr.

Ont., Oshawa—Having surveys made for 5,000 ft. sanitary sewer in Westmount Ave., vitr. tile and rein.-con. 12-in. up. $120,000. N. G. McDonald, Oshawa, engr.

BIDS DESIRED

Va., Richmond—Dec. 13, at office of A. J. Saville, dir. Pub. Wks., sewers in various streets; adv. this issue.

O., Akron — Dec. 9, by Director Pub. Serv., Willow Run Sewer 2, incl. 1,925 ft. vitr. brick and 3,000 ft. 6-12 in. tile. $170,000. J. E. Root, 300 Delaware Bldg., engr.

Ill., Urbana—Dec. 6, 8-12 in. glazed tile sewers in Coler and Busey Aves., Dist. 18. $27,000. A. M. Danley, City Hall, engr. Noted Nov. 17.

Wis., De Forest—Making plans seferage system, storm and sanitary sewers, 8-10 in. vitr. and tile. $50,000. W. G. Kirchoff, Vroman Blk., Madison, engr.

Wis., Shawano—Feb. 1, storm and sanitary sewers in 10 blocks 5th and Sawyer Sts. $25,000. L. P. Pelishek, Clintonville, engr.

Mo., St. Joseph—Dec. 6, laying 18 in. sewers in Dists. 96 and 127. $27,500. W. K. Seitz, city engr.

CONTRACTS AWARDED

N. J, Spring Lake—Ejector station and sewers in ½ mi. Shore Rd., Pennsylvania, 4th and Central Aves., to Monmouth Constr. Co., 60 Broad St., Red Bank, $25,929.

N. J., Union Hill (Weehawken P. O.)—For 3,110 lin.ft. 6-18 in. vitr. sewers in Hackensack Plank Rd., 2,000 sq.yd. earth and stone excav., to Hornung Costr. Co., 711 Dubois St., West Hoboken, $21,890. Noted Sept. 22.

N. J., Wallington—Passaic Valley Sewerage Comrs., 128 Market St., Newark, to Foundation Co., 120 Liberty St., New York, southerly portion of Sect. 19, Garfield-Wallington - Passaic Branch Intercepting Sewer, here, 2,065 lin.ft. excav. in compressed air tunnel, for 54 in. circular masonry sewer, $36.30 per lin.ft., 1,500 cu.yd. concrete masonry, etc., $20., total $106,604. Noted Oct. 20.

Pa., Phila.—For intercepting sewer along Tacony Creek, to J. Perma, 65th and Callowhill Sts., $179,977; main sewers in Ognotz Ave., Bingham St. and Venango and I Sts., to J. J. MacMinamin, Commercial Trust Bldg., $75,803, $56,600 and $41,285 respectively; 57th St., to W. H. Carson, 5615 Crowson St., $78,914; Fletcher St., to A. Joffola, 139 South 50th St., $61,340; Bigler and 4th Sts., to J. Lombardi, Lincoln Bldg., $76,800; Bigler St. from Vandalia to 3rd Sts., to Lolove & Lewis, Real Estate Trust Bldg., $69,470. Noted Nov. 10.

Pa., Pittsburgh—For Nine Mile Run Sewer, in East Liberty Dist. to J. F. Casey Co., Union Arcade, $176,078.

Fla., West Palm Beach—Sanitary sewers Dist. 1, section south of Althea to Carlberg Court, to Keystone Constr. Co., c/o P. J. Reardon, West Palm Beach, $36,814.

O., Akron—Director Pub. Serv., trunk sewer in North Main St. and trunk and lateral sewers in West Market St., to H. Shullo, 896 Kling St., $44,972 and $20,612, respectively. Noted Nov. 10.

Ind., Petersburg—For 10.5 mi. vitr. clay sanitary sewers and disposal plant in Dists. 1, 2 North, 3 South and 4 West, to J. L. Walker Co., 231 Court St., Hamilton, O.; work includes 42,990 ft. 8 in. v.c. pipe, $1.80, etc.; total for system $143,202, alternate plan $140,702. Noted Nov. 3.

Idaho, Caldwell—For 16,177 lin.ft. 12-27 in, concrete sewers, to Morrison-Knudsen Co., Railroad and Reclamation Ave., Boise, $50,485.

Kan., Florence—For 30 in. storm sewers, to Burt & Tripp, Herrington, $26,101. Noted Nov. 24.

Tex., Dalhart — For complete disposal plant and sewerage extensions, to Gordon Costr. Co., Barclay Bldg., Denver, $22,765. Noted Nov. 10.

Wash., Seattle—For 14,425 lin.ft. 8-24 in. clay sewers in East 70th St., et. al., to Fiorito Bros., 3650 6th St. N. W., $42,337. Noted Nov. 24.

Wash., Spokane—Trunk and lateral sewers to Standard Asphalt Paving Co., North 517 Lincoln St., $61,600. Noted Nov. 17.

Wash., Tacoma—Will build 6,120 ft. 36-60 in. rein.-con. storm and sanitary sewers by day labor. $183,961. D. W. King, 503 City Hall, engr.

Bridges

PROPOSED WORK

North Carolina—State Hy. Comn., Raleigh, plans steel or rein.-con. bridge over Scuppernong River, State Project 192, Tyrrell Co., $50,000; over Eno River, State Project 453, Orange Co., $75,000; over Pasquotank River, State Project 172, Pasquotank Co., $75,000; over Perquimans River, State Project 179, Perquimans Co., $80,000. C. M. Upham, state highway engr.

Fla., Clearwater—State Rd. Dept., Tallahassee, soon takes bids Safety Harbor Bridge and Seminole Bridge, concrete and creosoted timber. Pineallas Co. $100,000 and $50,000 respectively. C. E. Burleson, Clearwater, co. engr. Noted Nov. 10.

Fla., Tampa—Tampa & Gulf Coast Ry., Union Sta., plans trestle over Old Tampa Bay and over Big Bayou, ¾ mi. long. $70,000.

Fla., Titusville—Brevard Co. and State Rd. Dept., Tallahassee, plan 100 ft. concrete and timber bridge over Elbow Creek, 20 ft. $60,000. C. A. Browne, state highway engr.

Ala., Gadsden—Etowah Co. soon takes bids bridge over Wills Creek, six 40 ft. T beam girder spans and piers, 18 ft. roadway, 255 ft. overall. $30,000. W. S. Keller, Montgomery, state highway engr.

Wis., Tomahawk—Making plans 450 ft. plate girder bridge, 20 ft., on 4th St. $65,000. State Highway Comn., Madison, engrs.

Ia., Boone—Boone Co. plans steel bridge, two 260-ft. spans, 40-ft. approaches, 18 ft. wide. $45,000. J. A. Illeman, Boone, engr.

Ia., Mason City—Plans bridge. $38,000. J. H. McEwen, clk.

Tex., Wharton—See "Streets and Roads."

Ore., Salem—State Marion Co., City and Southern Pacific R.R. plans 800 ft. rein.-con. viaduct over railroad crossing. $100,000. C. M. McCollough, Salem, engr.

Idaho—Bureau of Highways, Boise, opens bids about Dec. 15, for Washington St. Bridge, at Emmett, three 120 ft. Warren truss spans, 20 ft. roadway, concrete floor, bitulithic surface, 5 ft. sidewalk, 2 concrete piers and 2 abutments, for State and Gem Co. $50,000.

Ont., Highland Creek—Dept. Pub. Highways, Parliament Bldgs., Toronto, plans bridge, probably steel trestle, 600 to 1,000 ft. long, 30 ft. roadway, across ravine, here. $150,000. G. Hogarth, Parliament Bldgs., Toronto, engr.

BIDS DESIRED

Conn., Waterbury—Bridge Comn. taking bids 3 span rein.-con. bridge over Naugatuck River, West Main St., 182 ft. long, 64 ft. wide. $150,000. R. A. Cairns, city engr. Noted Mar. 24.

Bridges (Continued)

Fla., Bradentown—Dec. 10, by Comrs. Manatee Co., 40 concrete bridges, 6-50 ft. spans, 79 galvanized iron culverts, 4 wooden trestles, total 10,000 ft., in Manatee Oneco Dist. $100,000. McElroy Eng. Co., Giddens Bldg., Tampa, engrs.

Ky., Pikeville—Dec. 10, at office of W. K. Steele, special bridge comr., suspension foot bridge over Big Sandy River at Coal Run Sta.; adv. this issue.

Wisconsin—Dec. 22, by State Hy. Comn., at Court House, Black River Falls, Melrose Bridge, truss type, 20 ft. roadway, incl. 6 riveted low truss spans each 75 ft. long, one high riveted truss span 200 ft. long, 665 ft. overall; substructure includes 2 rein.-con. abutments, 1 solid concrete pier and 5 concrete pedestal piers. M. W. Torkelson, bridge engr.

California—Dec. 5, by State Hy. Comn., Sacramento, rein.-con. girder bridge over Anderson Creek, to have four 36 ft. spans, 350 cu.yd. concrete; over Canyon Creek, three 28 ft. spans, 238 cu.yd. concrete; over Oregon Gulch, two 40 ft. spans, 280 cu.yd. concrete, Shasta Co. A. B. Fletcher, state highway engr.

BIDS RECEIVED

Mass., Neponset (Boston P. O.)—State Metropolitan Dist. Comn., 18 Tremont St., rejected bids opened Oct. 27, concrete and steel bridge, roller-lift draw, over Neponset River, 794 ft. long, 72 ft. wide. $475,000. Noted Nov. 10.

North Carolina—State Hy. Comn., Raleigh, rein.-con. bridges and culverts on State Project 511, Caswell Co. from C. B. Hester, Greensboro, $30,785; J. M. Gregory & Co., Danville, Va., $35,273; J. P. Dicus, Burgaw, $35,292. Noted Nov. 3.

Mich., Detroit—Superstructure of double-leaf bascule bridge, 156 ft. span, over River Rouge, West Fort St., from Bethlehem Steel Bridge Co., South Bethlehem, Pa., $272,500; Wisconsin Bridge & Iron Co., North Milwaukee, Wis., $280,306; Stroebel Steel Constr. Co., Monadnock Blk., Chicago, Ill., $288,059. Noted Oct. 27.

Wis., Sheboygan—Steel and concrete bridge on 8th St., from Wisconsin Bridge & Iron Wks., North Milwaukee, $210,000; Worden-Allen Co., Port Washington St., Milwaukee, $212,000; McMullen & Pitz, Manitowoc, $213,500. Noted Nov. 3.

CONTRACTS AWARDED

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., steel viaduct in West 134th St., 12th Ave. to 200 ft. easterly, to P. T. Cox Contg. Co., 154 Nassau St., $60,787. Noted Nov. 17.

Pa., Pittsburgh—Allegheny Co., rein.-con. arch bridge No. 2, over Bull Creek, Fawn Twp., to B. P. Dunn Structural Steel Co., Keystone Bldg., $35,034.

Mich., Detroit—Operators house, enclosure walls, etc., for bridge, 156 ft. span, over River Rouge, West Jefferson Ave., to Cooper-Widenmann Constr. Co., 1430 Penobscot Bldg., $78,700; electrical equipment, to Fowler Electric Co., 325 Huron St., Toledo, O., $34,809. Noted Nov. 17.

Illinois—See "Streets and Roads."

Ia., Indianola—Warren Co., following contracts, 18 culverts and 1 extension, to Alexander & Higbie, 2733 6th St., Des Moines, $9,045; 2 I beams, 1 through truss and 3 box culverts, Pittsburgh-Des Moines Steel Co., 9th and Tuttle Sts., Des Moines, $30,714.

Okla., Kingfisher—Kingfisher Co. 200 ft. concrete cantilever bridge, Federal Aid Project 25, to Hyde Constr. Co., Enid, $36,521.

Okla., Madill—Marshall Co., Glasses Creek Bridge and Wichita River Bridge, Federal Aid Project 48, to St. Louis Structural Steel Co., Syndicate Trust Bldg., St. Louis, Mo., $9,390 and $31,775 respectively; concrete culverts Sects. A-B, B-C and C-A and 40 ft. low water bridge, Federal Aid Project 48, to Kien & Greible, Shawnee, $16,437 and $4,259 respectively.

Dams

PROPOSED WORK

Idaho, Oreana—T. A. Foreman plans 1⅜ mi. canal, 18 ft. wide at flow line, 8 ft. bottom, 2½ ft. deep, and earth dam 8 ft. high, 18 ft. top and 15 ft. bottom, to divert 60 sec. ft. water from Castle Creek to irrigate 1,333 acres. $25,000. S. E. Vance, Sr., Boise, engr.

Railways

PROPOSED WORK

Montana—Holly Sugar Co., Boston Bldg., Denver, Col., plans 15 mi. road from Hardin to Foster. $300,000. S. W. Sinsheimer, mgr.

BIDS DESIRED

Ontario—Dec. 20, by S. B. Clement, ch. engr. Temiskaming & Northern Ontario Ry., North Bay, 70 mi. steam railway from Cochrane to Newport, incl. clearing, excav., ballast, bridges, etc. $3,500,000. Noted Nov. 3.

CONTRACTS AWARDED

New York—Transit Comn., 49 Lafayette St., 2 track sub-surface railroad extending under East and West 42nd St., Bryant Park and West 41st St. from about westerly line of Vanderbilt Ave. to about westerly line of 8th Ave., known as Route 67, part of Queensborough Rapid Transit R.R., to Powers-Kennedy Contg. Co., 149 B'way, $3,867,138. Noted Nov. 17.

Excavation and Dredging

PROPOSED WORK

Ill., Carmi—White and Gallatin Counties plan 24 mi. open ditches, and 1 mi. tile ditch, 776,614 cu.yd. excav. $126,011. W. W. Stokes, Carmi, engr.

Ill., Mt. Erie—Little Wabash Drain and Levee Dist. making plans levee and drainage system in Wayne and Edwards Counties. $300,000. G. C. Harvey, Court House, Mt. Carmel, engr.

Mo., Norborne—Norborne Land Drain Dist., c/o J. H. Franken, secy., having plans prepared drainage system. $500,000. Elliot & Harman, 144 Fredonia St., Peoria, Ill., engrs.

Tex., Robstown—See "Waterworks."

Idaho, Boise—Sweet Brier Irrigation Dist., T5S, R6E, plans primary lift, 40 to 45 ft. into canal, to irrigate 1,200 acres, secondary lift, 25 ft., to irrigate 300 acres and 3.5 mi. canal. $50,000. Engineer not selected. Preliminary work done by A. J. Wiley, engr., Idaho Bldg.

Utah, Provo—C. A. Gillette, Clift Bldg., Salt Lake City, (representing owner), has filed application for permission to use 215,000 acre-feet water from Price and Huntington Rivers, for irrigation system in Utah and Juab Counties. Project includes 20 mi. canals, 25 ft. bottom width, and large diversion dam. $4,000,000. Engineer not announced.

CONTRACTS AWARDED

N. Y., New York — M. Hulbert, comr. Docks, Pier "A" foot of Battery Pl., to New Jersey Shipbuilding & Dredging Co., foot of 28th St., Bayonne, N. J., dredging 35,000 cu.yd. at Piers foot of East 11th St., etc., $6,700, 18,400 cu.yd. at bulkhead between East 108th and 109th Sts., etc., $5,865, 15,500 cu.yd. at Piers at foot of Tiffany St., etc., $5,068, 10,200 cu.yd. at Piers foot of Fulton St., etc., $2,958; to F. E. Jones Dredging Co., 17 Battery Pl., 103,000 cu.yd at Piers 53 north side, 54 northside, 56 north and south sides and 64 south side, etc., $17,510. Noted Nov. 24.

Minn., Albert Lea—Freeborn and Mower Counties, Judicial Ditch 4, 691,571 yd. main ditch excav., at $0.15 and 15,000 yd. cattle crossings at $0.25, to Mulgrew & Sons, Dubuque, Ia., $103,736 and $3,750 respectively; 558,749 yd. main and lateral ditches, at $0.13, to Strom, Degerness & Hanson, Gary, $72,637; bridges to T. M. Thompson Bridge Co., 1013 Plymouth Bldg., Minneapolis, $11,100; spillway culvert to Vinton Eng. & Contsr. Co., Vinton, Ia., $3,985; corrugated pipe culverts with gates, grates and concrete to Mikelson Cement Products Co., Albert Lea, $48,047; tile to Lehigh Sewer Pipe & Tile Co., Ft. Dodge, Ia., $8,797 and to Quality Cement Products Co., Medford, $9,167; trenching and laying tile to T. Cipra and F. Nerad, Myrtle, $10,666. Noted Nov. 10.

Streets and Roads

PROPOSED WORK

Pa., Warren—Plans paving Lexington and 4th Aves. $50,000. A. Rogers, city engr.

North Carolina—State Hy. Comn., Raleigh, plans clearing, grading and surfacing 9.8 mi. road from Braggtown to Granville Co. line, State Project 413, Durham Co., $40,000, 18.3 mi. from Randolph Co. line to Moore Co. line, State Project 555, Montgomery Co., $90,000, 15.2 mi. from Ashboro to Montgomery Co. line, State Project 581, Randolph Co., $75,000, 11.5 mi. from Mecklenburg Co. line, via Mt. Holly, to Lincoln Co. line, State Project 633, Gaston Co., $55,000, 13.1 mi. from Wadesboro to Richmond Co. line, State Project 609, Anson Co., $65,000, 22.7 mi. from Montgomery Co. line to Aberdeen, State Project 570, Moore Co., $100,000; grading and surfacing 8.7 mi. from end of State Project 535 to Rockingham Co. line, State Project 536, Guilford Co., $40,000, 10.4 mi. from Greensboro to Randolph Co. line, State Project 537, Guilford Co., $50,000, 10.2 mi. from end of Federal Aid Project 72 to Wadesboro, State Project 608, Anson Co., $50,000, 8.2 mi. from Guilford Co. line to Reidsville, State Project 592, Rockingham Co., $40,000, 7.7 mi. from Guilford Co. line to Randleman, State Project 580, Randolph Co., $38,000, 10.4 mi. from Statesville to Alexander Co. line, State Project 640, Iredell Co., $50,000, 7.5 mi. from Neuse to Franklin Co. line, State Project 485, Wake Co., $35,000, 9.3 mi. from Raleigh to Neuse, State Project 484, Wake Co., $45,000, 6.5 mi. from Stovall to Virginia State line, State Project 429, Granville Co., $30,000, 5 mi. from Lewis to Stovall, State Project 428, Granville Co., $27,000; grading and paving with some type of hard surface 4.9 mi. from Concord to Rowan Co. line, State Project 615, Cabarrus Co., $104,000, 3.5 mi. from Warrenton to Norlina, State Project 493, Warren Co., $75,000; concrete or asphaltic paving 5.22 mi., State Project 504, Alamance Co., $135,000, 4.2 mi., State Project 535, Guilford Co., $120,000. C. M. Upham, state highway engr.

North Carolina—State Hy. Comn., Raleigh, plans grading and surfacing 6.7 mi. road from Silver City to Randolph Co. line, State Project 402, Chatham Co. $30,000. C. M. Upham, state highway engr.

N. C., Newton—Catawba Co. Highway Comn. plans topsoiling 12 mi. road. $25,000. O. Brown, Long Island, chn.

Fla., Williston—Dec. 28, to vote on $36,000 bonds hard surfacing various streets. C. E. Scarborough, clk.

Ill., Waukegan—Lake Co. making plans bituminous concrete paving 5 mi. road west from Gurnee, 18 ft., $150,000; 2.5 mi. road from Highland Park to Deerfield, 24 ft., $75,000; 2.5 mi. road from Highwood west to Telegraph Rd., 18 ft. $75,000. C. M. Powell, Waukegan, engr.

Wis., Elkhorn—Walworth Co. plans following road work for 1922, concrete paving Trunk Highway 61 from Delavan southwest, $26,499, Sharon-Darien Rd., $12,706, Walworth-Darien Rd. from Junction of Trunk Highway 61 North, $4,000, Elkhorn-Williams Bay Rd., $9,000, Trunk Highway 20, $20,000, 4 mi. road in town of Troy, $122,000, Lake Geneva-Walworth Rd., $280,000, Burlington-Elkhorn Rd., $240,000, Elkhorn-Delevan Rd., $120,000, Lake Geneva-Springfield Rd. from Lake Geneva city limits north and east to R.R. tracks at Springfield, Richmond-Whitewater Rd., $180,000; gravel surfacing Milwaukee-Millard-Tibbett Rd., $42,200, Lagrange-East Troy Rd., $47,500, East Troy-Springfield Rd., $15,000; maintenance of trunk highway system, $30,000. H. J. Peters, comr.

Wis., Fond du Lac—Fond du Lac Co. plans following road work for 1922: concrete paving Trunk Highway 23 in Ripon and Rosendale, $180,000; Trunk Highway 103, Metomen, Springvale and Waupun from Brandon east, $170,000; Trunk Highway 55, in city, Empire and Eden, from city southeasterly, $225,000; in Auburn from Washington Co. line north, $180,000; Trunk Highway 31, $100,000; graveling Peebles-Calvary-Wolf Lake Rd., in Taycheedah and Marshfield, $64,500; Wolf Lake and St. Cloud Rd. in Marshfield, $21,000; Malone-Mt. Calvary Rd. in Taycheedah and Marshfield, $10,100; Calvary-Mt. Calvary Rd., in Marshfield, $14,000; Rosendale-Oshkosh Rd., in Rosendale and Eldorado, $10,000; Ripon-Rush Lake Rd., $10,000. G. Treleven, comr.

Wis., Janesville—Rock Co. plans following road work for 1922, gravel surfacing 16,500 ft. Milton-Johnstown Rd., 5,000 ft. Shopier-Clinton Rd., 13,200 ft. Beloit-Monroe Rd., 740 ft. Janesville-Shopier Rd., 8,900 ft. Janesville-Avalon Rd., 5,300 ft. Edgerton-Stoughton Rd., 5,300 ft. State Line Rd., 5,300 ft. Johnstown-Center-Avalon Rd., 7,830 ft. Whitewater-Edgerton Rd., and 6,130 ft. Footville-Evansville Rd. C. E. Moore, comr.

Wis., Juneau—Dodge Co. plans following road work for 1922, concrete paving Waupun-Beaver Dam. Rd., South Beaver Dam Rd., Juneau-Hustiford Rd., Clyman-Columbus Rd., Rubicon Rd., Horicon-Iron Ridge Rd., Fond du Lac-Milwaukee Rd.; graveling Randolph-Beaver Dam Rd., $950,000. E. T. Klug, comr.

Streets and Roads (Continued)

Wis., Kewaskum—Making plans paving 2 mi. streets, 2 course rein.-con., concrete curb and gutters, $60,000. J. Donohue, 608 North 8th St., Sheboygan, engr.

Wis., Madison—Making plans paving, curbing and guttering and building sidewalks on .9 mi. Langdon, Murray and Regent Sts., 1 course rein.-con. $25,000. E. E. Parker, City Hall, engr.

Wis., Viroqua—Making plans paving 1.1. mi. West Bway., Decker and Hillyer Sts., 22 ft. 1 and 2 course rein.-con. $35,000. W. G. Kirchoffer, Vroman Blk., Madison, engr. Noted Nov. 3.

Wis., Wisconsin Rapids — Wood Co. plans to complete concrete road between Seneca Corners and Arpin, $121,054; grading and surfacing roads, $44,289. E. Morris, comr.

Ia., Washington—Making plans paving South Marion Ave., South 4th and Harrison Sts., blocks or brick on concrete. $30,000. W. F. Raun, Court House, engr. Noted Sept. 8.

Minn., St. Paul—Plans 5,236 yd. brick pavement, $28,850; 70,913 yd. concrete, $217,504; 71,408 yd. creosoted block, $434,693. O. Claussen, city engr.

Kan., Hiawatha—Brown Co. making plans grading 6 mi. Capital Highway, 30 ft. E. C. L. Wagner, 603 Kemper Bldg., Kansas City, Mo., engr.

Wyoming—State Hy. Dept., Cheyenne, rejected bids surfacing Lincoln Highway, Federal Aid Project 33, Albany Co., and Lincoln Highway, Federal Aid Project 85, west of Casper, in Natrona Co. Latter project will be readvertised this month. Noted Nov. 3.

Mont, Great Falls—Plans paving 2 mi. 2nd Ave. S. $80,000. M. L. Morris, city engr.

Tex., Wharton—Wharton Co. making plans surfacing, topping and building 100 ft. concrete bridge on 6.4 mi. State Highway 3,370 cu.yd. structural excav., 32,105 gal. asphaltic oil, 286 cu.yd. concrete, 20,767 cu.yd. gravel and 1,115 cu.yd. crushed rock surfacing, 24,176 lb. reinforcing, $103,748; grading 24 mi. Highway 12 from west line Precinct 1 to Jackson Co. line, 2,200 cu.yd. concrete, 192,000 cu.yd. earth and 1,180 cu.yd. structural excav., 77,500 lb. reinforcing, $120,000. A. P. Rollins, c/o Nagle-Witt-Rollins Eng. Co, Wharton, engr.

Idaho, Payette—Plans grading and paving 1 mi. North 6th St., 3rd North and Center Aves., 20 ft., warrenite bithulithic. $50,000. C. P. Lattig, Payette, engr.

Ont., Toronto—Making plans paving Edward St., asphalt on concrete, concrete curbs and gutters, $33,199, surfacing Richmond St. W., asphalt, $5,124, concrete sidewalks on Ranleigh and Selkirk Aves., $6,094. R. C. Harris, city engr.

BIDS DESIRED

Rhode Island—Dec. 14, by State Bd. Pub. Rds., Providence, 1.4 mi. Smithfield-Farnum Pike, bituminous macadam and 5.9 mi. Glocester, Scituate-Chepachet, southerly on Cherry Valley and Chopmist Rds., to Danielson Pike, bituminous concrete (Topeka); adv. this issue.

N. Y., New York—Dec. 6, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., widening and repaving 60th St. from 2nd to 3rd Aves.; repaving East 61st St. from 3rd to Park Aves., Bleecker St. from 7th Ave. to Grove St., East 52nd St. from 1st to Lexington Aves., 69th St. from Amsterdam to West End Aves., East 76th St. from Madison to 5th Aves., sheet asphalt on concrete. Former bids rejected. Noted Nov. 10 and 24.

W. Va., Huntington—Dec. 15, by Comrs. Cabell Co., grading and paving 1.5 mi. Kanawha and James River Turnpike, 32 ft. $35,000. J. N. Doyle, co. engr.

North Carolina—Dec. 9, by State Hy. Comn., Raleigh, grading and paving 1.9 mi. State Project 823, Cleveland Co., 4,600 cu.yd. excav., 2,060 cu.yd. rock excav., 19,420 sq.yd. concrete or asphaltic paving, 660 cu.yd. concrete, 107,950 lb. reinforcing, etc., $86,000. C. M. Upham, state highway engr. Noted Sept. 1.

S. C., Florence—Dec. 13, by Mars Bluff Bridge Bd., 2 mi. road; adv. this issue.

S. C., Orangeburg—Dec. 6, by Orangeburg Co., grading and surfacing 8.25 mi. Orangeburg-Augusta Rd. between Springfield and Neeses, 43,804 cu.yd. excav., 20,315 cu.yd. sand-clay surfacing. L. K. Sturkie, clk.

Florida—Dec. 10, by State Rd. Dept., Tallahassee, surfacing 10 mi. Mt. Dora-Plymouth Highway, 3 in. top surface, finished with Birmingham slag, on 8 in. rock. $150,000. C. A. Browne, state highway engr.

Fla., Bradentown—Dec. 10, by Comrs. Manatee Co., grading and paving 55 mi. Manatee-Oneco Rd. Dist., 250,000 cu.yd. grading, 94,000 sq.yd. asphalt and 105,000 sq.yd. shell. $250,000. McElroy Eng. Co., Giddens Bldg. Tampa, engrs. Noted July 21.

Fla., Tampa—Dec. 6, 8,215 sq.yd. asphalt block paving and 3,500 lin.ft. granite curbing. R. D. Martin, city engr.

Ind., Greenfield—Dec. 19, by Comrs. Hancock Co., gravel surfacing following roads: H. E. Wilson and J. E. Wilson, Green Twp., $11,100 and $11,625, respectively, Parks Crossley, Vernon Twp., $9,950, Wright also Wickard and I. J. Baity, Center Twp., $13,600, and $11,425 respectively, S. C. Staley, Brown Twp., $4,275, C. A. Presnall, Jackson, Twp., $11,975, E. B. Clift, Center and Brandywine Twps., $12,945; with gravel and concrete C. R. Milbourn Rd., Brandywine Twp., $14,500. C. Boone, co. surv.

Mich., Lapeer—Dec. 8, by State Hy. Dept. at office Bd. Rd. Comrs. Lapeer Co., grading and surfacing 7.515 mi. State Trunk Line Rd. 53-4, Sect. B, 58,809 cu.yd. excav., 70,544 sq.yd. gravel or stone-gravel. F. F. Rodgers, Lansing, state highway comr.

Ill., Effingham—Dec. 6, paving North 3rd St., brick on concrete. $25,000. G. Austin, Effingham, engr. Noted July 28.

Ill., Springfield—Dec. 6, paving, curbing and guttering various streets, vitr. brick on concrete. $29,000. W. Seeley, city engr.

Ia., Forest City—Dec. 8, by Auditor Winnebago Co., grading and gravel surfacing Sects. A and B Primary Rd., Project 120, east and west through Thompson, 21,716 cu.yd. earth work and 22,255 cu.yd. gravel.

Washington—Dec. 12, by State Hy. Comn., Olympia, clearing, grading and crushed rock surfacing 3 mi. Navy Yard Highway, from Tidewater Creek to Charleston, Kitsap Co., gravel surfacing 2.5 mi. North Bank Highway from Underwood to Bingen, Klickitat Co., 3 mi. North Bank Highway from Cooks to Underwood, Skamania Co., 9 mi. Olympic Highway between Beaver and Forks, Clallam Co.; clearing and grading 2 mi. Ocean Beach Highway from Nasel to Johnsons Landing, Pacific Co. J. Allen, state highway engr.

Wash., Morton—Dec. 13, paving Main St., et. al., 70,224 sq.yd. concrete. C. P. Hicks, Centralia, engr. Noted Oct. 27.

California—Dec. 12, by State Hy. Comn., Sacramento, asphaltic concrete paving 2.8 mi. highway between ¾ mi. northwest of Merced and Girard Ave., Merced Co.; 7 mi. highway between Tracy and ¾ mi. east, San Joaquin Co. A. B. Fletcher, state highway engr.

Cal., El Centro—Dec. 19, by Bd. Supervs. Imperial Co., paving West Side Highway, 128,800 sq.ft. concrete, 10,000 cu.yd. excav.; Calexico Rd. west, 169,376 sq.ft. concrete, 100 cu-yd. excav.; Calexico-Bonds Corner Rd., 253,744 sq.ft. concrete, 500 cu. yd. excav. E. P. Watson, Jr., co. highway engr.

BIDS RECEIVED

Massachusetts—State Hy. Dept., Boston, gravel surfacing 21,100 ft. highway in Plainfield and Cummington, from G. T. Seabury, Inc., 44 Washington St., Providence, R. I., $77,805; L. C. Carchia, Newton, $81,832; De Onfro Bros., Leominster, $82,780. Noted Nov. 17.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Nov. 22, repaving (1) 8th Ave., (2) 1st Ave., curbing and laying sidewalks on (3) Pierce Ave., reconstructing outlet (4) Far Rockaway Disposal Plant, from Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (1) $10.800, (2) $12,640; Cleveland Trinidad Paving Co., Flushing, (1) $11,772, (2) $13,496; W. P. McDonald Constr. Co., 618 Union St., Brooklyn, (1) $11,801, (2) $13,858; F. J. Clancy, 460 Lockwood St., Astoria, (3) $16,590; Welsh Bros. Contg. Co., 14 Queens St., Astoria, (3) $16,740; Hastings Pavement Co., 25 Broad St., New York, (3) $17,660; Slattery & Sweeney, 10 East 43rd St., New York, (4) $5,822; J. P. A. Hart, (4) $6,462. Noted Nov. 17.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Nov. 28, repaving (1) 52nd St. from Lexington to Park Aves., (2) 76th St. from Ave. A to Lexington Ave., sheet asphalt, curbing, recurbing, flagging, reflagging and paving (3) Fairview Ave. from St. Nicholas Ave. to point 571 ft. westerly, granite block on concrete, grading, curbing and flagging (4) West 187th St. from Northern to Pinehurst Aves., from J. E. Gaffney, 438 East 91st St., (1) $5,255, (2) $32,488; Asphalt Constr. Co., 2197 Madison Ave., (1) $5.264, (2) $32,098; Brusstar Constr. Co., Inc., Harlem River and 150th St., (1) $5,389; Interboro Asphalt Co., 233 Bway., (2) $32,131; P. J. Kearns Contg. Co., 2306 Creston Ave., (3) $25,758, (4) $69,135; J. Meehan & Son, 74 Cortland St., (3) $26,013; D. J. McCarthy, 88 Audubon Ave., (3) $27,164; M. Del Balso, 660 East 221st St., (4) $67,988; Fordham Contg. Co., (4) $69,204. Noted Nov. 24.

Pennsylvania—State Hy. Dept., Harrisburg, opened bids Nov. 22, paving 1,483 ft. Application 1700, Bradford Co., from R. J. DeLong, 229 West 4th St., Williamsport, $16,635, G. Metzger, Jr., Emporium, $17,485, W. J. and J. T. Gephart, 341 Pine St., Williamsport, $17,907; 32,669 ft. Route 262, Clearfield and Indiana Counties, from Anderson Constr. Co., Parnassus, $267,453, Burnside Constr. Co., Inc., Burnside, $277,539, M. Bennett & Sons, Indiana, $279,472; 31,221 ft. Route 262, Indiana Co. from R. J. DeLong, 229 West 4th St., Williamsport, $230,522, Azzara-Burd Constr. Co., Cresson, $231,061, Comerford Constr. Co. 125 South 5th St., Phila., $240,921; 11,497 ft. Route 211, McKean Co., from W. J. and J. T. Gephart, 341 Pine St., Williamsport, $26,627, Horn & Devling, Galeton, $29,525, Rizzuti & Chiodo Co. Inc., 161 Pleasant St., Bradford, $30,026. Noted Nov. 3.

Pa., Philadelphia—For paving (1) Montrose St., (2) 66th St., (3) 59th St., (4) Jefferson St., (5) Edgewood and 61st Sts., all foregoing asphalt, (6) Kingessing Ave., asphalt and granite block, (7) grading Gratz St. and 67th Ave., from Barber Asphalt Paving Co., Land Title Bldg., (1) $6,680, (2) $9,683, (3) $15,652, (4) $3,250, (5) $8,600, (6) $9,360; Eastern Paving Co., Colonial Trust Bldg., (1) $6,955, (2) $10,176, (3) $15,976, (4) $3,567, (5) $8,752, (6) $9,876; C. G. Shoffer & Co., Philadelphia, (7) $5,008; T. L. Flannigan, 1204 East Montgomery St., (7) $5,352; R. L. Wenner, Lincoln Bldg., (7) $5,672. Noted Nov. 17.

Virginia — State Hy. Comn., Richmond, grading 6.19 mi. road between Ripplemead and Hoges Store, 12 ft., Federal Aid Project 128-A, Giles Co., from L. J. Chandler & Co., Virgilina, $99,760; Warden Constr. Co., Pulaski, $105,320 Burgess & Atkinson, Scottsville, $112,098.

North Carolina—State Hy. Comn., Raleigh, (1) clearing, grading and topsoiling 14.85 mi. State Project 511, Caswell Co., (2) grading and paving, topeka top on 5 in. concrete, 10.24 mi. State Project 525, Davidson Co., (3) 11.7 mi. State Project 532, Guilford Co., (a) grading and paving, topeka on 5 in. concrete, (b) rein.-con. bridges and culverts, (4) 10.89 mi. State Project 501, Alamancs Co., (a) grading and topsoiling, (b) rein.-con. culverts, (5) grading and paving, topeka on 5 in. concrete 5.22 mi. State Project 504, Alamance Co., from White & Simpson, Chatham, Va. (1) $36,916; S. L. Davis Constr. Co., Greensboro, (1) $37,051, (4a) $25,097; E. A. Wilson & Co., Knoxville, Tenn., (1) $43,755; Elliott-Sholes Co., Durham, (2) $294,009, (3a) $334,892, (3b) $17,977, (5) $140,115; Elliott & Sons, Spartanburg, S. C., (2) $302,198; Porter & Boyd, Realty Bldg., Charlotte, (2) $330,341, (3a) $382,148; J. J. Dunnegan Constr. Co., Savannah, Ga., (3b) $17,917; R. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, (3a) $359,909, (5) $145,955; J. M. Gregory & Co., Danville, Va., (3b) $17,987, (4b) $6,817; W. M. Shook, Liberty, (4a) $23,743; Hanford Bros., Burlington, (4b) $5,918; Crawford & Crawford, Mebane, (4a) $24,984 C. B. Hester, Greensboro, (4b) $6,076; P. R. Ashby, Tucker Bldg., Raleigh, (5) $166,145. Noted Nov. 3.

Missouri—State Highway Dept. at div. office Chillicothe, opened bids Nov. 11, 1.804 mi. road east and west through Livingston Co., State Aid Project 20.34, Livingston Co., 1) 1,714 cu.yd. earth excav., (2) 87,064 cu.yd. borrow, etc., from C. W. Dillingham, St. Joseph, (1) $0.30 per cu.yd., (2) $0.16, total $24,723; Diemer & Williamson Constr. Co., Brookfield, (1) $0.22, (2) $0.20, $28,192; L. Vaill, Kansas City (1) $0.25, (2) $0.205, $29,230.

Missouri—State Hy. Dept., at div. office Lamar, opened bids Nov. 3, 17.093 mi. road east, west, north and south through Barton Co., State Aid Project 20,104, Barton Co., 44,436 cu.yd. earth excav., etc., from Allhands & Davis, Joplin, $0.215 per cu.yd., total, $29,681; M. E. Gillioz, Monett, $0.245, $30,215; Hanson Syndicate, Lamar, $0.31, $31,975.

Streets and Roads (Continued)

Missouri—State Hy. Dept. at div. office Mexico, 7.247 mi. road east and west through Audrain Co., State Aid Project 20.95, Audrain Co. (1) 22,224 cu.yd. earth excav., (2) 9,154 cu.yd. borrow, etc., from L. W. Spangler, Edinburg, Ill., (1) $0.30 per cu.yd., (2) $0.22, total, $23,915; Farrell, Dubrouillet & Cushion, Linn, (1) $0.35, (2) $0.30, $25,067; A. L. Cook, Ottawa, Kan., (1) $0.35, (2) $0.32, $26,182.

Tex., Breckenridge—Stephens Co. grading, surfacing and topping (1) 10.31 mi. State Highway 1, Albany Rd., 53.27 acres clearing, 52,610 cu.yd. borrow, 51,948 cu.yd. roadway, 6,344 cu.yd. loose and 1,461 cu.yd. solid rock excav., 23,333 sq.yd. bituminous macadam, 41,509 gal. asphaltic oil, 2,239.07 cu.yd. concrete, 199,840 lb. reinforcing and 167,920 lb. structural steel, 37,005 cu.yd. crushed stone to be furnished by county; (2) 19.78 mi. State Highway 1, Caddo Rd., 60 acres clearing, 78,611 cu.yd. borrow, 90,508 cu.yd. roadway, 14,499 cu.yd. loose and 5,757 cu.yd. solid rock excav., 2,579 cu.yd. concrete, 260,266 lb. reinforcing, 70,481 cu.yd. crushed stone to be furnished by county; from Womack Constr. Co., McKinney, (1) $220,337, (2) $301,564; Tibbetts Constr. Co., Box 179, Mineral Wells, (1) $206,651, (2) $279,415, (cost does not include bituminous topping; Maney Bros. & Co., Oklahoma City, Okla., (1) $270,790, (2) $364,506.

Tex., Marshall—Harrison Co. grading and surfacing (1) 19.03 mi. State Highway 11, (2) 4.21 mi. State Highway 11, (3) 16.29 mi. State Highway 11, all 16 ft., from F. P. McElwrath, Corsicana, (1) $59,530, (2) $7,939, (3) $46,804; Coche & Turner, Marshall, (1) $62,248, (2) $9,201, (3) $49,767; R. G. Buckner & Sons, Cleburne, (1) $69,545; Tibbetts Constr. Co., Box 179, Mineral Wells, (2) $9,205, (3) $54,737. Noted Nov. 10.

California—State Hy. Dept., grading 12 mi. highway between Flynn Creek and mouth of Navarro River, (a) 180,000 cu.yd. excav., (b) 450 cu.yd. concrete, from J. P. Holland, 540 Brannan St., San Francisco, (a) $0.84 per cu.yd., (b) $25, etc., total $170,239; Redman Page & Co., Balboa Bldg., San Francisco, (a) $0.85, (b) $25, total $171,176; Palmer & McBryde, 503 Market St., San Francisco, (a) $8.88, (b) $25, total $176,882. Noted Nov. 10.

CONTRACTS AWARDED

New York—H. S. Sisson, comr. State Hy. Dept., Albany, improving 8.02 mi. Hague-Ticonderoga, Highway 8079, Essex and Warren Counties, to A. Barboni, 314 Elm St., Syracuse, $250,602; 0.24 mi. Conesus-Wayland (Springwater Crossing), Highway 1321 A, Livingston Co., to Vonder Born & Rush, New York, $12,660; 1.85 mi. Caledonia-Mt. Morris, Part 3, Highway 5666, Livington Co., to A. W. Smith, Leroy, $39,605; 2.58 mi. Ft. Montgomery-Highland Falls, Highway 8078, Orange Co. and 11.46 mi. Wurtsboro-Ellenville, Highway 8080, Sullivan and Ulster Counties, to Steam Shovel Excavation Co., 91 Court St., Brooklyn, $100,750 and $320,138 respectively; 4.41 mi. Garrettsville-West Burlington, Highway 1603, Otsego Co., to J. F. Paddelford, North Main St., Sherburne, $138,216; 5.24 mi. Cobleskill-Sharon Springs, Part 2, Highway 1467, Schoharie Co., to C. H. Scudder, Painted Post, $136,606; 3.61 mi. Grahamsville-Montela, Highway 1601, Sullivan Co., to Schunnemunk Constr. Co., Highland Mills, $81,599; piers and abutments, Tompkins Cove-West Haverstraw, Highway 8049 A, Rockland Co., to Gifford Constr. Co., Jamaica, $29,134; reconstructing 7.6 mi. Skinnersville-New Home Bridge, Rd. 584, Rep. Contr. 3018, Erie Co., to Holmes & Murphy, Orchard Park, $147,046; 3.88 mi. Mt. Kisco-Pleasantville, Highway 519, Rep. Contr. 3020, Westchester Co., to F. Roeber Co., Inc., 507 5th Ave., New York, $128,843. Noted Nov. 10.

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, repaving Bent Ave. and portions of roadway of Manhattan Ave., etc., to Brooklyn Manhattan Contg. Corp., 26 Court St., $84,123 and $41,338 respectively. Noted Nov. 10.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., Boro Hall, widening and repaving 52nd St., to Interboro Asphalt Co., 233 B'way, $14,955; repaving Bridge St., to P. J. Kearns Contg. Co., 2306 Creston Ave., $6,232; 65th St., to J. E. Gaffney, 438 East 91st St., $11,328. Noted Nov. 10 and 24.

N. J., Long Branch—Bd. Comrs. paving Ocean Ave. northwardly from Sea View Ave. at boardwalk to southerly boundary line of Monmouth Beach Boro, to Newark Paving Co., 133 1st St., Newark, $76,000. Noted Nov. 10.

Pa., Phila.—To Union Paving Co., 37th and Spruce Sts., paving 2nd St., $7,635, Ashdale St., $3,649, York Rd., $37,606; Barber Asphalt Paving Co., Land Title Bldg., Weymouth St., $3,598; F. Mark Constr. Co., Commercial Trust Bldg., 20th St., 66th and 67th Aves., $5,098; J. G. Meade Constr. Co., 4937 Broad St., Cheldwyne Ave., $3,956. Noted Nov. 17.

N. C., Winton—Hertford Co. will grade and sand-clay surface various roads by day labor under supervision F. G. Hines, supt. $250,000. Noted Sept. 1.

Fla., Kelsey City (West Palm Beach, P. O.)—H. S. Kelsey, grading and surfacing, rock with binder, 6 mi. various streets including Dixie Highway, 9-16 ft., to Greynolds & Monroe, West Palm Beach, $80,000.

Fla., Stuart—Resurfacing 7 mi. various streets, crushed rock with oil binder, 9-24 ft., to E. P. Maule, Ojus, $3.29 per ton rock, $0.28 per sq.yd. oil binder; also 1,100 ft. concrete curb and 2 small concrete bridges, $11,000.

Fla., Tarpon Springs—Paving and curbing 2 mi. various streets, 28,000 sq.yd. vitr. brick and 15,000 lin.ft. concrete curbing, to J. B. McCrary Eng. Co., 3rd Natl. Bank Bldg., Atlanta, Ga., $91,282.

Fla., Titusville — Brevard Co. grading and surfacing 15 mi. Melbourne-Kissimee Rd., asphalt or oil on 6 in. rock, 528 sta. machine grading, 58,928 cu.yd. embankment, 140,605 sq-yd. macadam, 224,000 ft. b.m. bridge timber, to E. P. Maule, Ojus, $119,582. Noted Nov. 24.

Ohio—Dept. Highways and Pub. Wks., Columbus, grading, bridges, culverts and paving roads in following counties: Sect. "A" Youngstown-East Liverpool Rd., 1.58 mi., bituminous macadam, R. H. Shafer Co., Chamber of Commerce Bldg., Columbus, $49,896, Henry Co., Sect. 'A" Toledo-Napoleon Rd., 3.35 mi. waterbound macadam, to R. Stone, Lima, $39,218. Columbiana Co., Sect. "C-1" Lisbon-Salineville Rd., 0.971 mi., grading and paving bituminous macadam, to R. H. Shafer Co., Chamber of Commerce Bldg., Columbus, $24,994. Williams Co., Sect. "G-1" Bryan-Napoleon Rd., grading bridges and culverts, to Fred F. Walton, Upper Sandusky, $31,054. Adams Co., Sect. "D" West Union-Sinking Springs Rd., bridge, to C. J. Fox, Brookville, $5,362. Sect. "G" Newark-Mt. Vernon Rd., bridge, to Otto Ruhela, Chardon, $7,657. Sect. "G" Newark-Mt. Vernon Rd., bridge, to Stout & Stout, Stoutsville, $21,419. Licking Co., Sect. "G" Newark-Mt. Vernon Rd., repairing bridge, to Standard Eng. Co., Telodo, $3.344. Noted Nov. 24.

O., Cleveland—Paving Forest Ave., to E. Gedney, Ansel Rd., $24,490; East 64th and East 115th Sts., to Reiley Bros., The Arcade, $26,370. Noted Oct. 27.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 7.3 mi. Route 10, Sect. 21, and 5.25 mi. Route 10, Sect. 23, Sangamon Co., to H. C. Finley Constr. Co., Hoopeston, $161,918 and $111,882 respectively; 5.19 mi. Route 15, Sect. 15, Jefferson Co., Shidler Constr. Material Co., Kankakee, $117,691; grading 2.14 mi. Route 25, Sect. 38-A, Iroquois Co., New Era Constr. Co., 6548 Bosworth Ave., Chicago, $15,615; 2 concrete bridges, Route 25, Sect. 38-B, Zimmerly Bridge Co., Paris, $10,939. Noted Oct. 20.

Kan., Hiawatha—Paving various streets vitr. brick on concrete, to Baehl & Edgers, Leavenworth, $30,199.

Wyoming—State Hy. Comn., Cheyenne, grading and surfacing 3 mi. Lincoln Highway, between Buford and Laramie, Federal Aid Project 36, Albany Co., surfacing Cheyenne-Torrington Rd., between Horse Creek and Five Mile Bridge, Federal Aid Project 82, Laramie Co., to Bagley Bros., Wheatland, $6,060 and $83,032 respectively; Casper-Sheridan Rd., south of Buffalo, Federal Aid Project 69, Johnson Co., to Watt Bros., Tensleep, $20,288. Noted Nov. 3.

Missouri—State Hy. Dept., Jefferson City, 3.273 mi. road from Dill to Hickory Co. line, State Aid Project 20.9, Benton Co., 14,408 cu.yd. earth and 250 cu.yd. rock excav. and 1,086 cu.yd. concrete masonry, etc., to Kelley Constr. Co., Weaubleau, $11,457; 2.386 mi. road north and south through Pemiscot Co., State Aid Project 20.101, Pemiscot Co., to W. G. Wallace, Carruthersville, $4,382; 7.21 mi. road from Phelps Co. line near Knobview to Cuba, State Aid Project 20.105, Crawford Co., 38,512 cu.yd. earth and 500 cu.yd. rock excav. and 224.9 cu.yd. concrete masonry, to Birmingham & Jones, St. James, $19,068; 1,371 mi. road from St. Louis to Springfield, State Aid Project 20.107, Pulaski Co., 13,472 cu.yd. earth and 600 cu.yd. rock excav., and 83 cu.yd. concrete masonry, etc., to S. Rollins, Waynesville, $12,447; 1.918 mi. road from Paris to Mexico, State Aid Project 20.109, Audrain Co., 10,263 cu.yd. earth excav. and 108.6 cu.yd. concrete masonry, to R. J. Oliver, St. Louis, $8,699.

Missouri—State Hy. Dept., at div. office, St. Joseph, 6.639 mi. road from St. Joseph to Dearborn, Federal Aid Project 180, Buchanan Co., to Moritz & Oren, Effingham, Ill., $211,550. Noted Nov. 24.

Tex., McKinney—Collin Co. surfacing with local stone and gravel 15.03 mi. in Plano Dist., Contr. 25, and 8.97 mi. in Frisco Dist., Contr. 24, to D. H. Purvis & Son, Ft. Worth, $38,788 and $26,303 respectively. Materials to be furnished by county.

Tex., San Marcos—Hays Co. grading and surfacing 13.92 mi. State Highway 29-A, 16 ft., to Rice & Winder, 1101 West 22nd St., Austin, $57,059. Noted Nov. 24.

Idaho, Shoshone—Lincoln Co., gravel surfacing 21 mi. road from Barrymore to Hazelton, 20 ft., 25,000 cu.yd., to R. L. Reed, Jerome, $118,000.

Utah—State Hy. Comn., Salt Lake City, grading 12.56 mi. road from Marysvale to near Junction, Federal Aid Project 10, Piute Co., and gravel surfacing 4 mi. 18 ft., to A. C. Young, Richfield, $64,001. Noted Nov. 17.

California—State Hy. Comn., at div. office San Francisco, paving 8.3 mi. highway between Batavia and northerly boundary, Solano Co., to Clark & Henery Constr. Co., 38 South Sutter St., Stockton. Noted Nov. 24.

Cal., Los Angeles—Grading, oiling and concrete paving Whitsett Ave. between Leesdale St. and Sherman Way, 130,410 sq.ft. concrete, 130,410 sq.ft. grading, 65,090 sq.ft. oiling, to G. R. Curtis, 2440 East 26th St., $46,936.

Cal., Los Angeles—Los Angeles Co., paving, curbing and guttering 1.4 mi. streets in Puente Rd. Dist. 199, 13,395 lin.ft. concrete curbing, 13,540 sq.ft. concrete guttering, 13,409 cu.yd. excav., 25,618 sq.yd. oil macadam, to W. E. Hall, 286 Bandine St., Riverside, $52,250.

Industrial Works

PROPOSED WORK

Mass., West Springfield—(Springfield P. O.)—Natl. Library Bindery Co., 29 Worthington St., Springfield, having plans prepared 2 story, 50 x 110 ft. mill construction factory, here. $40,000. Private plans.

Conn., Bridgeport—Frisbie Pie Co., 363 Kossuth St., soon lets contract 2 story, 90 x 100 ft. bakery, brick and steel, plain foundation, Kossuth St. $50,000. Private plans.

Conn., Torrington—Union Hardware Co., 535 Migeon Ave., soon lets contract 1 and 2 story, 60 x 300 ft. mill construction addition to factory, plain foundation. Private plans.

N. Y., New York—W. H. Meyer, archt. and engr., 1861 Carter Ave., soon takes bids 4 story ice storage plant, brick and concrete, plain foundation, Webster Ave. $100,000. Owner's name withheld.

N. J., New Brunswick—State Bd. Dirs. New Brunswick Experiment Station plan dairy and husbandry building. $200,000. A. B. Mills, 142 West State St., Trenton, engr.

Pa., Ellwood City—Pittsburgh Malleable Iron Co., 34th and Smallman Sts., Pittsburgh, plans 1 story plant, Spruce Alley, here. Architect not selected.

Pa., Phila.—Escourt Hotel Co., 910 Ridge Ave., plans 4 story, 45 x 60 ft. cold storage plant, 913-915 Ridge Ave. $100,000. Architect not selected.

Pa., Phila.—Farmers Cold Storage Co., c/o G. T. Sales, Liberty Bldg., opens bids about Jan. 2, 4 story, 90 x 100 ft. brick and steel plant, Levick St. and Delaware Ave. $200,000. Ophuls, Hill & McCreery, Inc., 112 West 42nd St., New York, engrs. Noted June 16.

Pa., Pittsburgh—United States Lock Nut Corp., 400 North Michigan Ave., Chicago, Ill., plans plant, here. $500,000. Architect not selected.

Industrial Works (Continued)

W. Va.. Albright—West Virginia & Maryland Power Co., Tunnelton, plans central generating plant along Cheat River, near here.

W. Va., Clarksburg—United Mfg. & Equipment Co., making plans brick machine shop. Private plans.

W. Va., Glen Jean—Appalachian Power Co., Bluefield, plans addition to light and power plant, here. Viele, Blackwell & Buck, 49 Wall St., New York, consult. engrs.

W. Va., Nitro—E. P. Bailey Co. having plans prepared 1 story foundry and machine shop. $100,000. Private plans.

W. Va., Pikeville—Kentucky and West Virginia Power Co., Church St., New York, having plans prepared for power house, here. R. F. Weller, Hibbs Bldg., Wash., D. C., structural engr.

O., Canton—Canton Ice & Fuel Co., 601 4th St. N. E., had plans prepared by A. C. Bishop & Co., archts. and engrs., 427 Guardian Bldg., Cleveland, 1 story, 30 x 100 ft., brick and steel plant addition, plain foundation. $40,000.

O., Cleveland—E. W. Bliss Mfg. Co., St. Clair Ave., along tracks of New York Central R.R., plans 1 story, brick and steel forge shop, plain foundation. $40,000. Private plans.

O. Cleveland—A. W. Emerick—Garage, 16,205 St. Clair Ave., takes bids about Dec. 15, 1 story, 55 x 150 ft., brick and steel garage, plain foundation, St. Clair and Holmes Aves. $50,000. H. W. Steffens, 13,000 Forest Hill Ave., archt.

O., Cleveland—Industrial Fibre Co., West 98th St. and Walford Rd., having plans prepared 2 story, brick, steel and concrete factory addition, plain foundation. $75,000. Private plans.

O., Orrville—Cyclone Drilling Co. soon lets contract 1 story, 100 x 250 ft., brick, steel and concrete machine and forge shop, plain foundation. $200,000. Private plans.

Mich., Detroit—Simons Sales Co., 436 West Willis Ave., having plans prepared by A. Kahn, archt., 1000 Marquette Bldg., 1 story, 50 x 170 ft., rein.-con., brick and steel sales and service building, plain foundation, Woodward and Canfield Aves. $85,000.

Ill., Chicago—A. V. Teisen, archt., 4804 North Kedzie Ave., preparing plans 2 story garage, brick and steel. $40,000. Owner's name withheld.

Ill., Chicago—Vienna Model Bakery, 1040 Vernon Park Ave., soon lets contract 3 story bakery. $150,000. McCormick Co., Century Bldg., Pittsburgh, Pa., archts.

Ill., Shelbyville—City having plans prepared by Fuller & Beard, engrs., Ry. Exch. Bldg., St. Louis, Mo., for power house. $75,000.

Wis., Fond du Lac—Six Wheel Truck Co., Fox Lake, plans 2 or 3 story, 150 x 150 ft., brick and rein.-con. factory, here. $150,000. D. G. Strobel, Mgr., Architect not selected.

Wis., Milwaukee—A. G. Wolff, archt., 453 Mitchell St., opens bids about Dec. 5, 1 story, 60 x 100 ft. garage, brick and concrete, plain foundation, 16th and Cedar Sts., for J. Arrieh, 198 3rd St. $40,000.

Wis., Neenah—Tri City Nash Co., 526 South Commercial St., having plans prepared and takes bids about Dec. 10, 2 story, 55 x 150 ft. garage, brick, rein.-con. and steel, North Commercial St. $60,000. Noted Nov. 17.

Minn., St. Paul—See "Buildings."

Wis., Racine—E. L. M. Tire Co., Deane Blvd., plans 2 story, 148 x 160 ft. concrete addition to factory, plain foundation.

Mo., St. Louis—United Ry. Co., 39th and Park Sts., having plans prepared by A. M. Arhelger, archt., c/o owner, 2 story, 60 x 72 ft. warehouse and 1 story, 80 x 208 ft. repair shop, brick and steel, Bway. and Taylor Ave. $100,000.

Que., Montreal—Bramsons Auto Co., Philips Pl., plans 3 story, rein.-con. garage, Ontario St. $80,000.

Ont., Bridgeburg—Buffalo Specialty Co., 601 Northland Ave., Buffalo, N. Y., plans rein.-con. factory, here. $40,000.

BIDS DESIRED

Mass., Springfield—A. A. Geisel, Pecousic St., taking bids 1 story, 40 x 400 ft. concrete and brick addition to plant, plain foundation. E. C. and G. C. Gardner, 33 Lyman St., archts.

Pa., Conshohocken—Dec. 10, by Rambo-Regga, Norristown, 1 story, 62 x 99 ft. rein.-con., brick and steel factory, plain foundation, Main St., here. $45,000. H. P. Friend, Norristown, archt.

Pa., Phila.—Dec. 10, by Fanning-Schuett Mfg. Co., 502 Ruscomb St., 1 and 2 story, 50 x 120 ft. rein.-con., brick and steel machine shop, plain foundation, 3rd and Cayuga Sts. Private plans.

Pa., Washington—Tyler Pipe & Tube Co., receiving bids 1 story, 20 x 50 ft. and 50 x 50 ft. producer and boiler houses, steel and iron. $50,000. Simplex Eng. Co., Washington Trust Bldg., engrs.

Va., Richmond—Nolde Bros. Inc., 306 North 26th St., receiving bids altering and building 2 story, 59 x 91 ft. brick addition to bakery, at 2510 East Broad St. $60,000. McCormick Co., Century Bldg., Pittsburgh, Pa., archts.

O., Cleveland—Moody & Thomas Milling Co., 6312 Kinsman Rd., taking bids 1 story, 50 x 190 ft., brick and steel warehouse and garage, plain foundation, Park Ave. and East 66th St. $50,000. L. R. Walker, 1907 East 66th St., archt.

O., Cleveland—Stone Impvt. Co., Kirby Bldg., taking bids 1 story, 100 x 150 ft., brick and steel garage and commercial building, plain foundation, East 83rd St. and Carnegie Ave. $50,000. P. Matzinger & Co., Caxton Bldg., archts. Noted Nov. 10.

O., Cleveland—Terrill Bros., 1360 Giel Ave., taking bids 1 story, 49 x 140 ft., brick and steel garage, plain foundation, 14,325 Euclid Ave. $40,000. Private plans.

O., Cleveland—H. B. Townsend, c/o W. J. Mooney, archt., 17430 Woodford Ave., Lakewood, taking bids 1 story, 60 x 100 ft., brick, steel and concrete, plain foundation, Detroit Ave. near Forey Ave., here. $40,000.

Mich., Lansing—Dec. 15, by Bd. Water & Electric Light Comrs., power plant. J. E. Woodwall, 501 5th Ave., New York, consult. engr.; adv. this issue.

Ill., Chicago—H. C. Christensen, archt., 7258 Union Ave., taking bids 125 x 250 ft. ice plant, brick, on Talman Ave. and 12th St. $300,000. Owners name withheld.

Ill., Chicago—P. Gerhardt, archt., 64 West Randolph St., receiving bids 1 story, 103 x 115 ft. factory, rein.-con., brick and steel, 4203-19 West Grand Ave., for Nemo Dye Wks., c/o architect. $250,000. Noted Nov. 3.

Ill., Chicago—Dec. 6, H. J. Westbol, 1559 North Halsted St., 1 story, 140 x 180 ft. garage, brick and steel. $45,000. A. Comm, 3227 West Division St., archt.

Wis., Madison—C. S. Hansen, 902 Jenifer St., receiving bids 1 and 2 story, 66 x 132 ft., brick and rein.-con. garage, Jenifer St. $60,000. Private plans.

Wis., Milwaukee—M. Tullgren & Sons, archts., 425 East Water St., receiving bids 1 story, 60 x 120 ft., brick and concrete garage on Bway., for Alliance Investment Co., 115 Wisconsin St. $40,000. Noted Nov. 17.

Me., Portland—Dec. 2, by W. Underwood Co., 52 Fulton St., Boston, 6 story, 60 x 120 ft. concrete factory, here. Monkes & Johnson, Chauncy St., Boston, engrs.

CONTRACTS AWARDED

Mass., Everett—Malden Electric Co., 1 story, 63 x 66 ft., brick sub-station, Bway. and Oakland St., to Hudson Constr. Co., 6 Beacon St., Boston, $65,000.

Mass., Haverhill—West Realty Co., 2 story, 70 x 181 ft., garage, rein.-con. and brick, plain foundation, Water St., to J. H. Kerr, Rumford, Me., $100,000.

Mass., Springfield—E. T. Doris, 348 Bridge St., 1 story, 75 x 100 ft. rein.-con. and brick garage, plain foundation, Taylor St., to E. Radding Co., 158½ Main St., $45,000.

Mass., South Boston (Boston P. O.)—O'Brien Bros., West 4th St., Boston, 4 story, 50 x 170 ft., mill construction factory, 4th St., here, to Casper Ranger Constr. Co., 201 Devonshire St., Boston, $70,000.

R. I., Providence—C. S. Tanner Co., 250 South Water St., 2 story, 50 x 76 ft. brick and wood addition to factory, plain foundation, South Water and Coin Sts., to Williams & Merchant, Inc., 15 Westminster St., $40,000.

R. I., Providence—E. Rosen Co., 269 Charles St., 2½ story, 50 x 105 ft. rein.-con. and brick plant, plain foundation, Charles St., to C. I. Bigney Constr. Co., 357 Westminster St.

Conn., Bridgeport—Crane Co., South Ave., 1 story, 75 x 175 ft., brick and steel addition to factory, to T. J. Pardy Constr. Co., 1487 Seaview Ave., $70,000. Noted Nov. 17.

N. Y., Buffalo—Natl. Biscuit Co., West 15th St., New York City, brick and concrete plant, plain foundation, along the tracks of New York Central R.R. Belt Line between Fongeron and Urban Sts., here, to Thompson-Satrrett Co., 49 Wall St., New York, $750,000. Noted Feb. 24.

N. Y., Perrysburg—G. C. Andrews, water comr., Municipal Bldg., Buffalo, rein.-con. reservoir, here, to Cresent Concrete Co., Erie Co. Bank Bldg., Buffalo, $23,645. Noted Nov. 17.

N. J., Florence—Florence Pipe Fdry. & Machine Co., 1 story, 60 x 250 ft., rein.-con., brick and steel machine shop, plain foundation, to Austin Co., Bulletin Bldg., Phila., $75,000.

Pa., Ellwood City—Ellwood City Forge Co., 1 story, 98 x 120 ft. addition to factory, to Penn Bridge Co., Beaver Falls.

Pa., Phila.—Phila. Realty Co., c/o P. Eckert, 111 West Mt. Airy Ave., 3 story, 212 x 218 x 306 ft. garage and repair shop, rein.-con., brick and steel, plain foundation, 48th and Woodland Aves., by day labor. $150,000. Harris & Richards, Drexel Bldg., archts.

Pa., Phila.—Roth-Buick Co., Frankford Ave. and Oxford Pike, 1 story, 58 x 87 ft. sales and service building, rein.-con., brick and steel, plain foundation, 4653 Paul St., to G. W. Crossley, 2264 Bridge St., $40,000. Noted Nov. 10.

Pa., Yeadon—Longacre Park Ice Co., c/o S. L. Brumbaugh, 1427 Walnut St., Phila., 1 story, 32 x 32 ft. and 1 story, 32 x 164 ft. garage and repair shop, brick and steel, plain foundation, by day labor. $40,000. J. T. Hoekstra, 1713 Sansom St., Phila., archt.

W. Va., Star City—Star City Glass Co. Bldgs. A1 and A2, each 1 story, 140 x 500 ft., to Pittsburgh Bridge & Iron Co., Bessemer Bldg., Pittsburgh, Pa.; bldg. B, 37 x 160 ft., C, 35 x 100 ft., D, 30 x 15 ft., E, 15 x 18 ft., to Pennsylvania Bridge Co., Beaver Falls, Pa. All to have corrigated steel sidings.

O., Columbus—C. E. Steele, secy. Bd. Directors Ohio State University, 1 story, 100 x 300 ft. addition to power house, on campus, to E. Elford, 307 East Gay St., $162,900. Noted Nov. 24.

O., Lakewood (Cleveland P. O.)—T. L. White-Garage, Clifton Blvd. and Webb Rd., 1 story, 48 x 62 ft., brick and steel garage, plain foundation, 1412 Riverside Rd., to W. Saunderson, 19402 Fraiser Dr., $40,000.

O., Toledo—Jeanning Electric Co., 1 story, 60 x 300 ft., rein.-con., brick and steel factory, plain foundation, to A. Bentley Co., 201-31 Belmont Ave., $40,000.

Ill., Chicago—J. A. Ball Bearing Mfg. Co., 3051 West Lake St., 1 story, 125 x 165 ft. factory, brick and steel, 3305-35 West Harrison St., to A. R. Clark & Co., 80 North Michigan Ave., $85,000.

Ill., Chicago—H. E. Forke, 3261 Fullerton Ave., 1 story, 50 x 125 ft. garage and sales room, rein.-con., brick and steel, on Milwaukee Ave., near Logan Sq., masonry to Arends Bros., c/o W. Gauger, archt., 36 West Randolph St., steel work, the Federal Iron Wks., 3545 Shields Ave., total $40,000.

Ill., Elgin—Elgin Watch Co., 10 South Wabash Ave., Chicago, 4 story, 30 x 374 ft. factory, 3 story, 40 x 432 ft. dormitory, 3 story, 100 x 150 ft. administration building, all rein.-con. and brick, here, to C. E. Gertz, Elgin, $1,000,000. Noted Oct. 27.

Ill., Highland Park—M. Ringdahl, 1 story, 73 x 125 ft. garage, brick and steel, to Posing & Spaeth, 224 Oak St., Waukegan, $48,000.

Ill., Peoria—Leshnick Directory Co., 514 Main St., 2 story, 50 x 150 ft. printing plant, brick, steel and concrete, to R. Iben, 200 North University St., $100,000. Noted Nov. 3.

Wis., Burlington—J. A. Luke, 1 story, 68 x 132 ft. garage, concrete, plain foundation, by day labor. $40,000. M. F. White, 68 Wisconsin St., Milwaukee, engr. Noted Nov. 24.

Industrial Works (Continued)

Wis., Milwaukee—Pritzloff Hardware Co. 51 West Water St., 1 story, 80 x 150 ft. pipe storage building, brick and mill construction, plain foundation, 2nd St., to Klug & Smith, 69 Wisconsin St. $40,000.

Wis., Milwaukee—Wadhams Oil Co., 359 Clinton St., 1 story refinery, incl. 85 x 100 ft. tank house, 100 x 150 ft. barrel house, 30 x 30 ft. gasoline filling house, etc., brick and wood, plain foundation, Burnham St., to C. B. Danielson, 638 Mineral St., $75,000.

Wis., Sparta—Atkinson Nash Co., 2 story, 50 x 88 ft. garage, brick, rein.-con. and steel, Main St., to J. Teasdale, Main St., $50,000.

Ia., Malvern—A. Hall, 1 story, 40 x 60 ft. garage, brick, steel and concrete, to E. McCormick, Malvern, $40,000.

Neb., Omaha—Bergman & Henkens, 2 story, 60 x 60 ft., brick and steel foundry, 11th and Grace Sts., to P. Kiewits & Sons, 754 Omaha Natl. Bldg., $40,000.

Mo., Sedalia—Missouri Pacific R.R., Ry. Exch. Bldg., St. Louis, 1 story, 65 x 150 ft., brick and steel car shop, here, to E. J. Hadley, Sedalia, $43,000.

Mo., Sedalia—Missouri Pacific R.R., Ry. Exch. Bldg., St. Louis, 1 story, 65 x 150 ft., brick and steel car shop, here, to E. J. Hadley, Sedalia, $43,000.

Mo., St. Louis—Missouri Pacific R.R., Ry. Exch. Bldg., 1 story, 46 x 500 ft., brick and steel car repair shop, to J. F. Nelson & Sons, Arcade Bldg., $125,000. Noted Nov. 10

Okla., Dewey—Dewey Portland Cement Co., Mutual Bldg., Kansas City, Mo., cement plant, 4 concrete storage tanks, 20,000 bbl. capacity, to MacDonald Eng. Co., 53 West Jackson Blvd., Chicago, $60,000.

Cal., Los Angeles—Kittle Mfg. Co., 643 Santa Fe Ave., 1 story, 140 x 160 ft., brick and steel factory, to Austin Co., Pacific Electric Bldg., $40,000.

Buildings

PROPOSED WORK

Mass., Andover—Office—Amer. Woolen Co., Lawrence, having plans prepared by Adden & Parker, archts., 12 Bosworth St., Boston, 3 story, 135 x 200 ft. rein.-con. and brick, Haverhill St., here.

Mass., Brighton (Boston P. O.)—School—Schoolhouse Dept. of Boston, having plans prepared by Richardson, Barott & Richardson, archts., 8 Beacon St., Boston, 2 story addition to Bennett School, Union St., here. $175,000.

Mass., Roxbury (Boston P. O.)—School—Schoolhouse Dept. of Boston, having plans prepared by Newhall & Blevins, archts., 9 Park St., Boston, 2 story addition to William Lloyd Garrison School, Hutchings St., here. $150,000.

Conn., New Britain—Club and Community—World War Veterans, Main St., had plans prepared by H. F. Ludorf, archt., Mutual Bldg., 4 story, 60 x 150 ft. rein.-con. and brick, North St. $250,000.

Conn., Waterbury—Clubhouse—Knights of Columbus Bldg. Assn. of Sheridan Council, having plans prepared by L. A. Walsh, archt., 51 Leavenworth St., 3 story, concrete, brick and steel, Prospect St. $300,000.

N. Y., Batavia—Office and Theatre—Community Theatre Co. soon takes bids 3 story, 86 x 212 ft., brick and white terra cotta, East Main St. $200,000. H. L. Spann, 52 Chippewa St., Buffalo, archt.

N. Y., Jamestown—Theatre—Mozart Amusement Co., 313 North Main St., soon lets contract 1 story, 88 x 125 ft., fireproof construction, 3rd and Spring St., on percentage basis. $200,000. Excavation contract awarded. E. A. Phillips, Warren Trust Bldg., Warren, Pa., archt.

N. Y., New York—Apartment—M. Bagdanoff, 2038 Ryder Ave., had plans prepared by C. Kreymborg, archt. and engr., 2534 Marion Ave., 6 story, brick, steel and stone, plain foundation, Bainbridge Ave. near 196th St. $175,000.

N. Y., New York—Apartment—S. Gittenberg, 713 East 136th St., having plans prepared by C. Kreymborg, archt. and engr., 2534 Marion Ave., 6 story, brick, steel and stone, plain foundation, Grand Concourse and 173rd St. $325,000.

N. Y., New York—Memorial—Knights of Columbus, c/o G. McCabe, archt. and engr., 96 5th Ave., takes bids about Dec. 15, 4

WATERWORKS IMPROVEMENTS—PARSONS, KAN.

Bids were received Nov. 8 (lowest 3) by City, for (1) removing present c.i. force line and constructing new supply line from Neodesha River, from (A) F. M. Sheflow, Elgin, Ill. (awarded contract); (B) C. H. Everett Co., Hutchinson; (C) Merkle Machinery Co., 1733 Walnut St., Kansas City, Mo.; (2) furnishing c.i. pipe, (A) Amer. Cast Iron Pipe Co., Scarritt Bldg., Kansas City, Mo.; (B) U. S. Cast Iron Pipe & Fdry. Co., 122 South Michigan Ave., Chicago, Ill. The unit bids were as follows:

	A	B	C
8,685 lin.ft. hauling, trenching, laying and back-filling 16-in. c.-i. pipe-lead joints	$0.85	$1.02	$0.91
8,550 lin.ft. hauling, laying in open trench, backfilling 16-in. c.-i. pipe-lead joints	.80	.97	.67
8,685 lin.ft. hauling, trenching, laying and backfilling 16-in. M.J. steel pipe, lead joints	.75	.87	.71
8,550 lin.ft. hauling, laying in open trench, backfilling 16-in. M.J. steel pipe-lead joints	.70	.82	.46
9,030 lin.ft. trenching, disjointing, hauling and distributing to city 12-in. c.-i. pipe	.35	.50	.63
10,050 lin.ft. trenching, disjointing, hauling and distributing to city 10-in. c.-i. pipe	.30	.45	.56
7,050 lin.ft. trenching, disjointing, hauling and distributing to city 8-in. c.-i. pipe	.28	.40	.51
25 lin.ft. hauling, trenching, laying and backfilling 4-in. c.-i. blow-off line	.50	1.00	.50
70 cu.yd. solid rock excavation in trench (extra over earth excavation)	6.00	4.50	6.50
1 cu.yd. class "B" concrete in place	15.00	15.00	20.00
6 brick M.H. for air valves	43.00	50.00	50.00
17,600 lin.ft. hauling, trenching, laying and backfilling 20-in. class "A" c.-i. pipe-lead joints	.92	.95	.82
17,600 lin.ft. hauling, trenching, laying and backfilling 20-in. class "A' c.-i. pipe—Metalium joints	.82	.88	.79
17,600 lin.ft. hauling, trenching, laying and backfilling 20-in. M.J. steel pipe, lead joints	.80	.80	.68
17,600 lin.ft. hauling, trenching, laying and backfilling 20-in. M.J. steel pipe—Metalium joints	.72	.73	.65
7,600 lin.ft. trenching and backfilling 20-ft. concrete pressure pipe	.30	.30	.32
Rock excavation in trench (extra over earth excavation)	6.00	4.50	6.50
15 cu.yd. class "B" concrete, in place	15.00	5.00	18.00
21,000 lin.ft hauling, trenching, laying and backfilling 4-in. c.-i. pipe, 12 ft. lengths, lead joints (6,400)	.37	.29	.38
5,675 lin.ft. hauling, trenching, laying and backfilling 6-in. c.-i. pipe, 12 ft. lengths, lead joints (5,075)	.41	.32	.41
925 lin.ft. hauling, trenching, laying and backfilling 8-in. c.-i. pipe 12-ft. lengths, lead joints	.45	.40	.455
400 lin.ft. hauling, trenching, laying and backfilling, 10-in. c.-i. pipe, 12-ft. lengths, lead joints	.51	.44	.52
100 lin.ft. hauling, trenching, laying and backfilling 12-in. c.-i. pipe, 12-ft. lengths, lead joints	.56	.48	.55
21,000 lin.ft. hauling, trenching, laying and backfilling 4-in. c.-i. pipe, 16-ft. lengths, lead joints (14,600)	.33	.27	.38
5,675 lin.ft. hauling, trenching, laying and backfilling 6-in. c.-i. pipe, 16-ft. lengths, lead joints (600)	.37	.30	.41
7,050 lin.ft. trenching, laying and backfilling 8-in. c.-i. pipe, 12-ft. lengths (no hauling), lead joints	.42	.36	.43
10,000 lin.ft. trenching, laying and backfilling, 10-in. c.-i. pipe, 12-ft. lengths (no hauling), lead joints	.47	.39	
8,700 lin.ft. trenching, laying and backfilling, 12-in. c.-i. pipe, 12-ft. lengths (no hauling), lead joints	.50	.44	.50 .52
21,000 lin.ft. hauling, trenching, laying and backfilling 4-in. c.-i. pipe, 12-ft. lengths, Metalium joints	.36	.28	......
5,675 lin.ft. hauling, trenching, laying and backfilling 6-in. c.-i. pipe, 12-ft. lengths, Metalium joints	.38	.30	......
925 lin.ft. hauling, trenching, laying and backfilling 8-in. c.-i. pipe, 12 ft. lengths, Metalium joints	.41	.38	......
400 lin.ft. hauling, trenching, laying and backfilling 10-in. c.-i. pipe, 12-ft. lengths, Metalium joints	.47	.42	......
200 lin.ft. hauling, trenching, laying and backfilling, 12-in. c.-i. pipe, 12-ft. lengths, Metalium joints	.51	.46	......
21,000 lin.ft. hauling, trenching, laying and backfilling, 4-in. c.-i. pipe, 16-ft. lengths, Metalium joints	.32	.26	......
5,675 lin.ft. hauling, trenching, laying and backfilling, c.-i. pipe, 16-ft. lengths, Metalium joints	.35	.29	......
7,050 lin.ft trenching, laying and backfilling 8-in. c.-i. pipe, 12-ft. lengths (no haul), Metalium joints	.38	.34	......
10,000 lin.ft. trenching, laying and backfilling 10-in. c.-i. pipe, 12-ft. lengths (no haul), Metalium joints	.43	.37	......
8,700 lin.ft. trenching, laying and backfilling, 12-in. c.-i. pipe, 12-ft. lengths (no haul), Metalium joints	.45	.42	......
4,930 lin.ft. taking up, disjointing 4-in. c.-i. pipe (no trenching)	.11	.15	.20
4,075 lin.ft. taking up, disjointing 6-in. c.-i. pipe (no trenching)	.12	.20	.22
920 lin.ft. taking up, disjointing 8-in. c.-i. pipe (no trenching)	.13	.24	.30
23 lin.ft. hauling and setting fire hydrants	7.00	9.00	10.00
6 hauling and setting 2-in. gate valves with boxes	2.50	4.00	1.25
56 hauling and setting 4-in. gate valves with boxes	3.00	4.00	1.25
16 hauling and setting 6-in. gate valves with boxes	4.00	5.00	2.00
12 hauling and setting 8-in. gate valves with boxes	5.00	6.00	2.50
6 hauling and setting 10-in. gate valves with boxes	6.50	7.00	3.00
4 hauling and setting 12-in. gate valves with boxes	8.00	8.00	4.00
300 sq.yd. cutting and replacing brick paving	5.00	6.50	5.00
550 sq.yd. cutting and replacing asphalt paving	6.00	7.50	5.00
79 making wet connections as specified	10.00	15.00	20.00
895 cu.yd. for rock excavation in trenches (extra over earth excavation)	6.00	4.50	5.50
Extended totals using c.-i. pipe and lead joints	$74,838	$79,090	$80,854

391.77 tons furnishing 16-in. class "A" B. & S. c.-i. pipe in 12-ft. lengths	$49.00	$49.90
625.00 tons furnishing 16-in. class "B" B. & S. c.-i. pipe in 12-ft. lengths	46.00	46.90
4,000 lb. furnishing bell end c.-i. fittings, ton	113.20	0.0565
1,320.00 tons furnishing 20-in. class "A" B. and S. c.-i. pipe in 12-ft. lengths	49.00	49.90
5,500 lb. furnishing bell end c.-i. fittings, ton	113.20	0.0565
159.0 tons furnishing 4-in. class "B" B. & S. c.-i. pipe in 12-ft. lengths	50.00	49.90
155.3 tons furnishing 4-in. class "B" B. & S. c.-i. pipe in 16-ft. lengths	51.00	....
53.3 tons furnishing 6-in. and larger, class "B" B. & S. c.-i. pipe in 12-ft. lengths	46.00	46.90
52.1 tons furnishing 6-in. and larger, class "B" B. & S. c.-i. pipe in 16-ft. lengths	47.00	47.90
9,000 lb. furnishing 4-in. Bell end c.-i. fittings	123.20	0.0615
50,000 lb. furnishing 6-in. and larger end, c.-i. fittings	123.20	0.0565
Extended totals	$127,201	$129,079

Buildings (Continued)

story, brick, steel and stone, plain foundation, Ave. C and East 30th St. $150,000. Noted Nov. 3.

N. Y., New York—Theatre and Stores—Ninth Ave. Amusement Co., c/o G. Keister, archt, and engr., 56 West 45th St., having plans prepared 85 x 150 ft., brick, steel and stone, plain foundation, 9th Ave. and 55th St. $250,000. M. Pear, pres.

N. Y., Plattsburg — Bank — Merchants Natl. Bank having plans prepared by H. J. Cook, archt., Dun Bldg., Buffalo, fireproof construction. $200,000.

N. J., Elizabeth—School—St. Mary's Parish having plans prepared by J. C. Rowland, Jr., archt., 100 Sip Ave., Jersey City, for school. $150,000.

N. J., Ocean City—Apartment—Hanscom Bros., c/o E. A. Hanscom, 734 Market St., Phila., plan 4 story, 80 x 165 ft., cut stone and brick, 7th St. and Boardwalk, here. $150,000. Architect not selected.

Pa., Altoona—Cathedral—Cathedral of Blessed Sacrament plans 120 x 200 ft. stone, 14th Ave. and 13th St. $1,000,000. J. T. Comes, Renshaw Bldg., Pittsburgh, archt.

Pa., Aspinwall (Pittsburgh P. O.)—Auditorium, etc.—Shadyside Academy, Ellsworth and Morewood Aves., Pittsburgh, soon takes bids for auditorium, gymnasium, dining hall and power plant. E. P. Mellon, 52 Vanderbilt Ave., New York, archt.

Pa., Erie—Court House—Erie Co., having plans prepared by W. Frank, archt., for addition to court house. $500,000.

Pa., Juniata (Altoona P. O.)—Church—First Methodist Church, 6th Ave. and 6th St., plans 2 story, 120 x 150 ft. brick, 8th Ave. and 4th St. $150,000. Architect not selected.

Pa., McKeesport—High School—Bd. Educ. plans addition. $300,000. Architect not selected.

Pa., Phila. — Apartment — Acme Realty Co., c/o R. R. Cooper, 1330 Lombard St., takes bids early in 1922, 4 story, 50 x 129 ft. brick and steel, plain foundation, 1732-36 Christian St. $150,000. C. H. Wilson, 2028 West Berks St., archt.

Pa., Phila.—Library—Comn. of Fairmount Park, c/o T. S. Martin, City Hall, had plans prepared by H. Trumbauer, archt., Land Title Bldg., and takes bids early in January for 2 story, 213 x 313 ft., brick and stone, on Parkway. $3,000,000.

Pa., Phila.—Store, Market, etc.—Logan Market House Co., c/o R. R. Meely, archt., 2136 Pine St., having preliminary plans prepared and takes bids early in 1922, 3 story, 50 x 100 ft. and 1 story, 100 x 200 ft. store, market and refrigerating plant, rein.-con., brick and steel, plain foundation, Logan Dist. $500,000.

Pa., Pittsburgh — Stadium — Carnegie Institute of Technology, Schenley Park, plans athletic stadium, on campus. $300,000. Architect not selected.

Pa., Uniontown—Store—Aaron Co., Main St., Connellsville, having revised plans prepared by A. Kahn, archt., 1000 Marquette Bldg., Detroit, Mich., 8 story, 35 x 76 ft., Main and Gallatin Aves. $400,000. H. W. Altman, Uniontown, associated archt.

Pa., Warren—Church—First Methodist Episcopal Church, 3rd Ave., plans church on 2nd Ave. $200,000.

Pa., Wilkinsburg—Exchange—Bell Telephone Co., 13th and Arch Sts., Phila., having preliminary plans prepared and takes bids early in 1922, 3 story, 50 x 120 ft. stone, brick and terra cotta, plain foundation. $175,000. J. T. Windrim, Commonwealth Bldg., Phila., archt.

Md., Cumberland—Hotel—G. Washington Hotel Co., 12 South Centre St., having plans prepared by Esenwein & Johnson, archts., Ellicott Sq. Bldg., Buffalo, N. Y., 7 story, 100 x 175 ft., fireproof construction. $900,000.

D. C., Wash.—Hotel—F. H. Smith Co., 815 15th St., N. W., having plans prepared by J. H. De Sibour, archt., Hibbs Bldg., for hotel, 15th and K Sts., N. W. $500,000.

W. Va., Wheeling—Hotel—Tri-State Security Co., 1129 Market St., having preliminary plans prepared by H. E. Shimmin, archt., 2031 Euclid Ave., Cleveland, O., 14 story, 68 x 125 ft., steel, 14th and Market Sts. $1,000,000.

Fla., Cocoa—Hotel—Weidensee & Alexander, and R. W. Powers plan 4 or 5 story, 100 x 110 ft., rein.-con. and steel. $500,000.

Fla., Gainesville—Schools—Alachu Co. School Bd. plans 2 brick schools. $150,000. E. R. Simmons, co. supt. pub. institutions

Fla., Tampa—Courthouse—Hillsborough Co. plans rein.-con., brick and steel. $700,000. C. T. Friend, 210 Curry Bldg., chn. co. comn.

Tenn., Chattanooga—Auditorium—City plans brick and stone, McCallie Ave. R. H. Hunt, James Bldg., archt.

Tenn., Chattanooga—School—Plans 3 story, brick, at Highland Park. $220,000. R. H. Hunt, James Bldg., archt.

Tenn., Memphis—College—Southwestern University, (Presbyterian), Clarksville, having plans prepared by H. C. Hibbs, archt., 412 4th and 1st Natl. Bank Bldg., Nashville, for college, incl. dormitory, academic halls and heating plant, here. $1,000,000.

Ky., Lexington—School—Bd. Educ., McClelland Bldg., takes bids about Jan. 1, 2 story, brick. $200,000. Frankel-Curtis Co., Ben Ali Theatre Bldg., archts.

Ky., Lexington—Theatre and Office—M. Switow, 1359 South 2nd St., Louisville, and W. James, 39-51 West Broad St., Columbus, O., had plans prepared and soon takes bids 3 story, 65 x 200 ft., rein.-con., stone and brick, East Main St. $250,000. Taking bids on excavation. Joseph & Joseph, Francis Bldg., Louisville, archts.

Ky., Louisville—Club—Joseph & Joseph, archts., Francis Bldg., soon takes bids 6 or 8 story, 140 x 180 ft., rein.-con., steel and brick, concrete pile foundation, 3rd and Chestnut Sts., for Louisville B. P. O. E., 310 West Walnut St. $500,000.

Ky., Louisville—Home—Grand Lodge ot Kentucky, Masonic Temple, Flexner Bldg., having plans prepared by Joseph & Joseph, archts., Francis Bldg., 15 or 20 buildings, 2 story each, rein.-con., brick and stone, stone and concrete pile foundation. $1,500,000.

Ky., Louisville—Schools—Voted $1,000,000 bonds for schools. A. Peter, Commercial Bldg., chn. Bd. Educ. Money for issue will not be available until April, 1922.

O., Akron—Hospital—Summit Co. sold $250,000 bonds to build hospital, Merriman Rd. Total, $1,000,000.

O., Cleveland—Church—Trinity Evangelical Church, Scranton Rd. near Aiken Rd., having plans prepared by A. E. Skeel, archt., 4500 Euclid Ave., 1 story, brick, steel and stone, plain foundation. $150,000.

O., Cleveland — Commercial — Ninth Garage Bldg. Co., East 6th St. and St. Clair Ave., having plans prepared by G. A. Grieble, archt., 9th Garage Bldg., 4 story, 150 x 300 ft., brick, steel and stone addition, plain foundation. $300,000.

O., Cleveland—Store—Halle Bros. Co., c/o S. H. Halle, pres., Euclid Ave., plans brick, steel and concrete addition, plain foundation, 1031 Huron Rd. $400,000. Architects name withheld.

O., Columbus—University—C. E. Steele, secy. Bd. Directors Ohio State University, rejected bids 4 story, 40 x 150 ft. girls dormitory (Mack Hall). Work will be re-advertised. Noted Nov. 24.

O., Dayton—City Hall and Municipal—Plans 10 story, 80 x 250 ft., rein.-con. and brick, Main St. $950,000. F. O. Eichelberger, city mgr. Architect not selected.

O., Dayton—Office—L. G. Cooper, 301 East 1st St., plans 6 story, 60 x 100 ft., rein.-con. and brick, 1st and Main Sts. $500,000. Architect not selected.

O., Middletown — High School—M. E. Danford, pres. Bd. Educ. opens bids about Dec. 15 or 20, 2 story, brick and concrete. $500,000. T. D. McLaughlin, 610 Savings Bldg., Lima, archt. Noted Dec. 9.

O., Ridgeville (North Ridgeville, P. Q.)—School—Bd. Educ. having plans prepared by Fulton-Taylor Cahill, archts., 8120 Euclid Ave., Cleveland, 2 story, rein.-con., brick and steel, plain foundation. $150,000.

O., Tiffin—Lodge and Office—Knights of Pythias plan 5 story, downtown section. $250,000.

O., Youngstown — Office — Terminal Building Co. plans 6 story addition, Philps St., upon completion of present 6 story building, Phelps St. and along tracks Erie R.R. $500,000.

Ill., Chicago — Apartment — R. Edelson and H. Paullin, 11 South La Salle St., plan 4 story, 125 x 200 ft., rein.-con., brick and stone, on Bway. and Oakdale Ave. $300,000. Architect not selected.

Ill., Chicago—Nurses Home—Michael Reese Hospital, 29th St. and Ellis Ave., plans 7 story, 100 x 150 ft. $750,000. M. E. Greenbaum, dir. Architect not selected.

Ill., Joliet—Sanitarium—Comrs. Will Co. plan 3 story rein.-con. and brick. $150,000. E. Young, clk. Architect not selected.

Ill., Oak Park—Apartment—O. R. Prohaska, c/o Minchin Spitz & Co., archts., 19 West Jackson Blvd., Chicago, having plans prepared for rein.-con., brick and stone, here. $175,000.

Ill., Rock Island—High School—Bd. Educ. plans high school, brick, stone and steel. $200,000. J. L. Vernon, pres. Architect not selected.

Wis., Bloomington—School—Bd. Educ., c/o A. C. Bishop, secy., plans 2 story 75 x 190 ft., brick and rein.-con. $150,000. Architect not selected.

Wis., Delavan—High School—Bd. Educ. c/o B. Z. See, clk., having plans prepared by E. Tough, archt., 24 East Mifflin St., Madison, 2 story, 72 x 131 ft. brick, rein.-con. and stone. $150,000.

Wis., Madison—Church and Chapel—St. Paul University Chapel, c/o H. Hengel, 723 State St., plans 1 or 2 story, 60 x 150 ft., rein.-con., brick and stone, State St. $150,000. Architect not selected.

Wis., Madison—Union—University of Wisconsin Memorial Assn., c/o A. H. Goodnight, having plans prepared by A. Peabody, archt., Capitol Bldg., 2 story, 248 x 336 ft., brick, rein.-con. and stone, Langdon St. $1,000,000.

Wis., Milwaukee—Gymnasium—Kenwood Methodist Episcopal congregation, 757 Racine St., having sketches made 1 story, 50 x 80 ft. brick and steel, plain foundation, to form 1st unit of church on Kenwood St. $150,000. S. Anderson, reverend.

Wis., Milwaukee—Temple—R. Messmer & Bro., archts., 221 Grand Ave., soon let contract, 1 and 2 story, 100 x 245 ft., rein.-con., brick and stone, plain foundation, Kenwood Blvd., for Temple Emanu-El. $350,000.

Wis., Milwaukee — Temple — Wisconsin Consistory, c/o W. N. Perry, Van Buren and Oneida Sts., plans brick and concrete, plain foundation. $500,000. Architect not selected.

Ia., Dubuque—School—Bd. Educ., c/o L. Palen, secy., Business & Insurance Bldg., having plans prepared by J. Royer, archt., Flat Iron Bldg., Urbana, Ill., for Jackson School, 2 story, rein.-con., brick and stone. $200,000. Noted Nov. 24.

Minn., St. Paul—Office, etc.—R. C. Cobb Co., 2 East 3rd St., having plans prepared by A. H. Stem, archt., 601 Endicott Bldg., 6 or 7 story, 70 x 120 x 140 ft. office and warehouse, rein.-con., brick, tile and stone. $350,000.

Kan., Independence — High School — Bd. Educ. making plans 3 story, 150 x 200 ft., brick, stone and rein.-con. $600,000. N. S. Spencer & Son, 39 West Van Buren St., Chicago, archts.

Neb., Scottsburg — High School — Bd. Educ. having plans prepared by R. A. Bradley & Co., archts., Hastings, rein.-con., brick, stone and steel. $500,000.

N. D., Fargo — Home — North Dakota Children's Home Society having plans prepared by Toltz, King & Day, archts., 1410 Pioneer Bldg., St. Paul, Minn., 2 story, 48 x 175 ft., rein.-con., brick and steel, 13th St. and 13th Ave., S. $150,000. F. Hall, supt.

Mo., St. Louis—Theatre—Orpheum Circuit Consolidated, Palace Theatre Bldg., New York, having plans prepared by C. W. and G. L. Rapp, archts., 190 North State St., Chicago, for Mississippi Theatre, 2 story, 140 x 190 ft., brick and terra cotta, here. $1,500,000. M. Beck, pres.

Mo., Union — Court House and Jail—Franklin Co. having plans prepared by N. B. Howard archt., Arcade Bldg., St. Louis, 3 story, 90 x 90 ft., rein.-con., brick and stone. $150,000.

Tex., Amarilo — High School — Voted $220,000 bonds new high school and ward building. L. D. Marrs, mayor.

Okla., Oklahoma City—Hospital—Voted $250,000 bonds for hospital. B. M. Hart, city engr.

Col., Denver—Store—L. R. Steel Service Corp., 406 Guardian Trust Bldg., takes bids about Jan. 1, 4 story (ultimately 8 story), 100 x 125 ft. rein.-con., steel and terra cotta, 16 and Welton Sts. $350,000-$400,000. W. H. Hoyt, Colorado Natl. Bank Bldg., archt.

Wash., Seattle—Office—R. C. Semple, engr., New York Blk., takes bids about Jan. 1, 120 x 120 ft., steel, in business district. $1,500,000. Owners name withheld.

Buildings (Continued)

Cal., Tustin—High School—Tustin High School Dist. having plans prepared by M. Marston, archt., 535 I. W. Hellman Bldg., Los Angeles, for high school. $250,000.

Ont., St. Thomas—School—Election in January to vote on $300,000 for technical school. Address A. P. Conley, St. Thomas, member of Bd. Educ.

BIDS DESIRED

Mass., Haverhill—Theatre, Office, etc.—Blackall, Clapp & Whittemore, archts., 20 Beacon St., Boston, taking bids 3 story, concrete, brick and steel, Main St., here, for E. Brodie, 94 Bway. $200,000. Noted July 21.

Conn., New Britain—Temple—M. J. Unkelbach, archt., 162 Main St., taking bids 7 story, 107 x 210 ft., concrete, brick and steel, West Main St., for Masonic Order, Elton Pl. $750,000. Noted Dec. 23.

N. Y., Brooklyn—School—Dec. 7, by C. B. J. Snyder, supt. School Buildings of Bd. Educ., Municipal Bldg., New York, P. S. 187, 12th Ave. between 64th and 65th Sts. Noted Sept. 1.

N. Y., Far Rockaway—Apartment and Hotel—Natl. Housing & Land Development Co., c/o G. and E. Blum, archts. and engrs., 505 5th Ave., New York, 400 x 412 ft., brick, steel and stone, plain foundation, Bway. and Oak St., here. $800,000. Work will be done by separate contracts under supervision of architects. Noted Nov. 10.

N. Y., New York—School—Dec. 7, by C. B. J. Snyder, supt. School Buildings of Bd. Educ., Municipal Bldg., altering and additions to P. S. 41, Olinville Ave. and Magenta St. Noted Sept. 1.

Pa., Aspinwall (Pittsburgh P. O.)—School and Dormitory—Dec. 12, by E. P. Mellon, archt., 52 Vanderbilt Ave., New York, 2 story school, and two 2 story dormitories, for Shadyside Academy, Ellsworth and Morewood Aves., Pittsburgh.

Pa., Pittsburgh — Apartment — Manoa Realty Co., 8 story, 91 x 160 ft., brick, steel and stone, plain foundation, Ruskin Ave. $1,000,000. Work will be done by separate contracts. H. L. Stevens, 522 5th Ave., New York, archt.

Pa., Plymouth—School—Dec. 15, by E. G. Perrot, archt., Boyertown Bldg., Phila., 3 story, 62 x 113 ft. brick and stone, plain foundation, for St. Vincent Roman Catholic Church, here. $175,000.

Md., Baltimore—Service—Dec. 3, by Church Home and Infirmary, North Bway., 6 story, 86 x 126 ft. addition, brick, steel and stone. $500,000. Wyatt & Nolting, Keyser Bldg., archts. Noted July 21.

W. Va., Bluefield—Hotel—Matz Hotel, 3 story, 50 x 125 ft., brick and steel addition. $150,000. Work will be done by separate contracts. Private plans.

O., North Robinson—School—Dec. 12, by Bd. Educ. 2 story, 100 x 124 ft., brick, steel and concrete, plain foundation. $225,000. W. Unger, Bucyrus, archt.

Ill., Chicago—Office, etc.—A. S. Alschuler, archt., 28 East Jackson Blvd., receiving bids 2 story, 100 x 132 ft., ordinary construction, terra cotta front for D. Schetnitz, c/o architect. $175,000.

Ill., Chicago—Station—Dec. 6, by Northwestern Elevated R.R., 72 West Adams St., brick and steel, on Wilson St. and Bway. $150,000. I. Budd, pres. A. W. Gerber, c/o owner, archt.

Ill., Delavan—High School—Dec. 15, by Bd. Educ., 2 story, rein.-con., brick and stone, and 88 x 141 ft. power house, 90 ft. stack. $150,000. W. Curtis, pres. Deal & Ginzel, I.O.O.F. Bldg., Lincoln, archts. Noted Nov. 17.

Ill., Evanston—Temple, etc.—B. H. Hunter, 1920 Asbury Ave., representing owner (Mt. Moriah Lodge 28) taking bids 3 story, 75 x 262 ft., brick. Ridge and Emerson Sts. $150,000.

Minn., St. Paul—School—Dec. 10, H. W. Austin, city purch. agt., 4 story, 73 x 125 ft. rein.-con., brick, stone and tile, 14th and Jackson Sts. $185,000. C. A. Hausler, City Hall, archt.

BIDS RECEIVED

Mass., Boston—Hospital—City Hospital received bids altering present building and construction 2 story, 43 x 150 ft. and 43 x 107 ft. top addition, also two 6 story, 28 x 43 ft. and 40 x 43 ft. annexes, from Evatt Constr. Co., 161 Devonshire St., $486,000; J. Bowen Co., 184 Dudley St., $513,000; McDonald & Imhoff, Dudley St., $519,000. Noted Nov. 10.

Minn. South St. Paul—High School—Bd. Educ. 3 story, rein.-con., brick, tile and stone, from Kvitrud & Madsen, 646 Builders Exch. Bldg., Minneapolis, $154,000; O. Olson, South St. Paul, $169,000.

CONTRACTS AWARDED

Mass., Boston—Municipal—Bldg. Dept., 3 story, 40 x 230 ft., brick and steel, Commercial St., to M. Seretto, 3 Tremont Row, $186,000. Noted Nov. 24.

Mass., Boston—Office—Lumber Mutual Fire Insurance Co., 141 Milk St., 3 story, 55 x 125 ft. rein.-con., brick and steel, plain foundation, Beacon St., to W. A. and H. A. Root, 1 Beacon St., $150,000.

Mass., Fall River—Hospital—City Hospital Comn., 2 story, concrete, brick and steel, plain foundation, Bedford St., to A. McDougall, 859 Robeson St., $700,000.

Mass., Newton—High School—Bldg. Dept., 3 story, 57 x 241 ft., with 61 x 70 ft. ell, brick, Walnut St., to M. Ryan, 34 Fayette St., Cambridge, $213,456. Noted Nov. 17.

Conn., Lakeville—Dormitory—C. Gilbert, archt., 244 Madison Ave., New York, 4 story, 41 x 126 ft., rein.-con. and brick, to Whidden-Beekman Co., 100 Boylston St., Boston, Mass., for Hotchkiss School. $175,000. Noted Nov. 3.

Conn., Meriden—Church—St. Rose Roman Catholic Church, 35 Center St., 2 story, 65 x 125 ft., brick, steel and concrete, plain foundation, Center St., to H. Wales-Lines Co., 134 State St. Noted Oct. 27.

N. Y., New York—Apartment—Alcas Realty Corp., c/o G. Nordham, archt. and engr., 18 West 34th St., 6 story, 100 x 100 ft., brick, steel and stone, plain foundation, Vyse Ave., by day labor. $180,000.

N. Y., New York—Apartments—A. Blumenthal, c/o D. S. Lang, archt. and engr., 110 West 34th St., two 5 story, brick, steel and stone, plain foundations, Valentine Ave., by day labor. $175,000 each.

N. Y., New York—Apartment—I. Pike, c/o J. M. Felson, archt. and engr., 1133 Bway., 5 story, brick, steel and stone, plain foundation, Hull Ave., by day labor. $150,000.

N. Y., New York—Apartment—Poleckrans Bldg. Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, 90 x 100 ft., brick, steel and stone, plain foundation, Harrison Ave. near 180th St., by day labor. $165,000.

N. Y., New York—Club and Recreation—Intercollegiate Cosmopolitan Club of Y. M. C. A., 12 story, brick, steel and stone, plain foundation, Claremont Ave. near 124th St., to M. Eidlitz, 33 East 42nd St., $1,500,000.

N. J., Jersey City—Exchange—New York Telephone Co., 15 Dey St., New York, 3 story, brick, steel and stone side addition, plain foundation, Erie St., here, to W. A. L'Hommedieu & Co., 1 Madison Ave., New York. $150,000.

Pa., Mahanoy City—Bank—Union Natl. Bank, general contract for 1 story, 25 x 125 ft. rein.-con., brick and steel, plain foundation, Main and Center Sts., to Shamokin Lumber Co., 34 South 6th St., Shamokin, $92,000. Total $150,000. Noted Sept. 15.

Pa., Phila.—Apartment—A. Sonefeld, 707 Walnut St., will build 4 story, 105 x 250 ft. concrete, brick, stone and tile, 47th and Walnut Sts., by day labor. $250,000. F. E. Hahn, 1112 Chestnut St., archt. Noted Sept. 8.

Pa., Reading—High School—Bd. School Directors, 3 story, 177 x 226 ft. rein.-con., brick and steel, plain foundation, 13th and Marion Sts., to M. Melody & Son, 1322 Race St., Phila., $240,000. Noted Nov. 10.

O., Cleveland—Commercial and Apartment—L. Cahn, 10615 Grantwood Ave., 3 story, 69 x 85 ft., brick and timber, plain foundation, Cedar and Edgehill Rds., to J. Kutnick, 5802 Longfellow Ave., $150,000.

O., Cleveland—Commercial and Temple—Carter, Richards-Griffith Co., archts., Illuminating Bldg., 3 story, 35 x 62 ft. and 67 x 120 ft., brick, steel and concrete, plain foundation, East 106th St. and St. Clair Ave., to J. Grant & Son, 4500 Euclid Ave., for Glenville Masonic Temple Co., c/o G. E. Andres, 676 Eddy Rd. $150,000. Noted June 16.

O., Columbus—University—C. E. Steele, secy. Bd. Directors Ohio State University, additions to Brown Hall and physics building to E. Elford, 307 East Gay St., $84,370 and $67,884 respectively. Noted Nov. 24.

O., Lorain—School—Church of Nativity of Blessed Virgin Mary, 3 story, 66 x 90 ft., brick, steel and concrete, plain foundation, to L. A. Burgett & Co., Lorain, $150,000. Noted Oct. 27.

O., Marion—Hospital—Marion City Hospital altering and building 2 story, brick, steel and concrete addition, plain foundation, to J. Baldorf & Son, Marion, $150,000. Noted Aug. 4.

Ind., New Albany—Home—New Albany B. P. O. E., general contract for 2 story, 100 x 150 ft., stone and brick, to Platoff & Bush, 120 Liberty St., Louisville, Ky., $165,000.

Ill., Champaign—Church—Holy Cross Catholic Church, 1 story, 88 x 125 ft., brick, steel and stone, to English Bros., 419 Lincoln Bldg., $200,000. Noted March 10.

Ill., Chicago — Apartment—J. J. Fairweather, 108 South La Salle St., 3 story, 100 x 100 ft., brick, fireproof construction, to Olson Bros., 6200 Evans Ave., $150,000.

Ill., Chicago—Apartment—F. J. Mullman, c/o P. F. Olson, archt., 127 North Dearborn St., 3 story, 100 x 173 ft., rein.-con., brick and stone, 1306-66 Greenleaf Ave., to J. Anderson & Son, 5723 Winthrop Ave., $200,000. Noted Nov. 3.

Ill., Chicago — Apartment—Thorne & Brennan, 10 South La Salle St., 3 story, 100 x 150 ft., rein.-con., brick and steel, Kenmore and Glenlake Aves., to C. Chapman, 118 North La Salle St., $150,000. Noted Oct. 20.

Ill., Chicago—Church—Evangelical Lutheran Church, 1 and 2 story, 123 x 210 ft., rein.-con., brick, stone and steel, Glenwood and Elmdale Aves., to Ericesson & Crumlish, 123 West Madison St., $200,000. Noted Jan. 13.

Ill., Evanston—Church—First Baptist Church, 2 story, 50 x 100 ft., stone, Chicago Ave. and Raymond Park, to Moraw Building Co., 6407 South Park Ave., Chicago, $175,000. Noted Aug. 11.

Ill., Hinsdale—Service—Stuyvesant-Peabody Coal Co., 2 story, 120 x 208 ft., rein.-con. and brick, to Midland Eng. and Constr. Co., 332 South Michigan Ave., Chicago, $250,000.

Ill., La Grange—High School—Bd. Educ. 3 story, rein.-con., brick and stone to Great Lakes Constr. Co., 308 South Wabash Ave., Chicago, $150,000. Noted Oct. 27.

Ill., Paris — High School—Bd. Educ. 3 story, 65 x 110 ft., brick, steel and stone, to C. J. Newlin Normal, $150,000. Noted Nov. 10.

Wis., Milwaukee—Apartment—M. Tullgren & Sons, 425 East Water St., 6 story, 60 x 72 x 86 ft., brick and concrete, plain foundation, 6 Prospect Ave., to S. M. Siesel, 105 Wells St. $150,000.

Wis., Milwaukee—School—Bd. Industrial Educ., 7th and Prairie Sts., 2nd unit on Prairie St. masonry to R. Reisinger & Co., 646 Oakland Ave., $118,589, cut stone to Andies Stone & Marble Co., Keefe and Richards Sts., $26,678. Noted Nov. 10.

Ia., Marshalltown—School—Bd. Educ. 3 story, 73 x 147 ft., rein.-con., brick and tile, to W. F. Kucharo, Hubbell Bldg., Des Moines, $160,000. Noted Nov. 3.

Kan., Lawrence—School—Bd. Educ. 3 story school, to A. H. Neumann & Co., 6th and Locust Sts., Des Moines, Ia., $495,000. Noted Nov. 3.

Mo., St. Louis—Exchange—Southwestern Bell Telephone Co., 314 North Bway., 2 story, 86 x 110 ft., rein.-con., brick and stone, 23rd and Locust Sts., to Murch Bros., Ry. Exch. Bldg., $150,000. Noted Nov. 17.

Que., Montreal—Hospital—St. Justine Hospital St. Denis St., 5 story, 56 x 140 ft. and 37 x 54 ft. rein.-con., brick and stone addition, St. Hubert St., to A. and D. Boileau, 546 Fabre St., $203,000. Noted Aug. 18.

Federal Government Work

PROPOSED WORK

N. Y., South Brooklyn (Brooklyn P. O.)—Dredging—Spec. 4560—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans dredging 35th St. pier and main basin, here.

D. C., Bellevue — Power Plant Equipment—Spec. 4497—Bureau Yards & Docks, Navy Dept., Wash., plans installing power plant equipment, here.

S. C., Charleston—Fire Protection System—Spec. 4558—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans form fire protection system, here.

S. C., Charleston—Piping—Spec. 4557—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans piping for air compressor, here.

Minn., Duluth—Quarters—Spec. 4549—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans quarters at radio station, here.

Federal Government Work (Continued)

Wash., Puget Sound—Addition—Spec. 4564—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans addition to shell house, here.

Wash., Puget Sound—Pier—Spec. 4556—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans to rebuild and extend Pier 5, here.

Wash., Puget Sound—Seawall—Spec. 4562—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans seawall, here.

Cal., Mare Island—Addition—Spec. 4561—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans addition to shell house and magazine, here.

Cal., San Diego—Barracks, etc.—Spec. 4563—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans 6 barracks and entrance gates, at Naval Training Station, here.

Cal., San Diego—Gas, Water, etc.—Spec. 4559—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans gas, water, sewerage and underground electric systems, here.

Cal., San Diego—Lighting System—Spec. 4526—Bureau Yards & Docks, Navy Dept., Wash., D. C., plans street lighting system, here.

BIDS DESIRED

Ga., Savannah—Quarters—Spec. 4517—Dec. 14, by Bureau Yards & Docks, Navy Dept., Wash., D. C., quarters at radio station, here.

Ind., Marion—Hospital—Dec. 15, by Natl. Home for Disabled Volunteer Soldiers, Dayton, O., 1 story, 95 x 315 ft., brick, steel and concrete, here. $250,000. Schenck & Williams, 908 Mutual Home Bldg., Dayton, O., archts.

Wis., Milwaukee—Hospital—Dec. 19, by C. D. Wadsworth, genl. treas. of Bd. Managers of Natl. Home, Dayton, O., 1 story, 90 x 100 ft. service building, 42 x 120 ft. administration and four 58 x 290 ft. ward buildings, brick and concrete, plain foundations, at Soldiers Home, here. $1,400,000. Scott & Mayer, 455 Milwaukee St. Milwaukee, archts., Schenk & Williams, 908 Mutual Home, Dayton, O., supervising archts.

BIDS RECEIVED

Mass., Rutland—Buildings and Equipment—Treas. Dept., Wash., D. C., extensions to administration building, construction semi-ambulant quarters, attendants quarters, laundry and garage, U. S. Pub. Health Serv. Hospital, here, from M. Serreto, 3 Tremont Row, Boston, $282,673, G. Burley, Flint, Mich., $294,000, H. P. Cummings Constr. Co., 14 Prospect St., Ware, $322,669; mechanical equipment for above, from G. E. Eng. Co., 449 West 42nd St., New York, $146,300, Ranson & Anderson, 136 Liberty St., New York, $153,880, C. J. Gleason, 1526 Walton Way, Augusta, Ga., $156,300. Noted Oct. 27.

O., Cincinnati—Lock Gates—U. S. Engineer, 2nd Dist., lock gates for Locks 30 and 32, Ohio River, (1) Lot A, (2) Lot B, (3) Lots A and B combined, (4) alternate Lot A, (5) Lot B, (6) Lots A and B combined, from Amer. Bridge Co., 1304 Union Trust Bldg., (1) and (2) $37,469 each, (3) $71,098, (4) and (5) $34,302 each, (6) $65,394; Penn Bridge Co., Beaver Falls, Pa., (1) $39,178, (2) $39,233, (3) $77,599, (6) $69,386; W. S. Rae, 439 Oliver Bldg., Pittsburgh, Pa., (1) and (2) $43,850 each, (3) $86,898, (4) and (5) $40,723 each, (6) $80,644. Noted Oct. 27.

Wash., Keyport—Tower—Spec. 4538—Bureau Yards & Docks, Navy Dept., Wash., D. C., 210 ft. radio tower, at Naval Radio Station, here, (1) work complete, from C. F. Marten, 4120 Dayton Ave., Seattle, (1) $5,713, (2) $0.10, (3) $390; J. A. McEachean, 552 Coleman Bldg., Seattle, (1) $7,431, (2) $0.10, (3) $500; Ward & Ward, Inc., 626 Perkins Bldg., Tacoma, (1) $7,800, (2) $0.20, (3) $0.035. Noted Nov. 3.

Wash., Walla Walla—Hospital—Treas. Dept., Wash., D. C., U. S. Pub. Health Serv. Hospital, complete, except mechanical equipment, from J. H. Wiese, 5103 Cass St., Omaha, Neb., $123,880; W. D. Lovell, 1415 8th St., Minneapolis, Minn., $165,900; King Lumber Co., Charlottesville, Va., $174,000. Noted Aug. 11.

Cal., Eureka—Tower—Spec. 4533—Bureau of Yards & Docks, Navy Dept., Wash., D. C., 300 ft. radio tower at Naval Radio Sta., here, (1) work complete, from Eureka Boiler Wks., foot of Tea St., (1) $6,890 (150 days), (2) $4,000, (3) $2,890, (3) $0.067, (4) $0.025; Pittsburg-Des Moines Steel Co., 959 Munsey Bldg., Wash., D. C., (1) $7,960 (150 days), (2) $5,180 (80 days), (3) $2 780 (70 days), (4) $0.143, (5) $375; Union Constr. Co., 807 Balfour Bldg., San Francisco, (1) $8,128, (2) $5,227. Noted Nov. 3.

CONTRACTS AWARDED

Cal., Mare Island—Remodeling Barracks—Spec. 4489—Bureau Yards & Docks, Navy Dept., Wash., D. C., remodeling Barracks 53, Navy Yard Marine Reservation, here, to Schultz Constr. Co., 46 Kearney St., San Francisco, $14,433 (100 days). Noted Nov. 17.

Miscellaneous

PROPOSED WORK

Transmission Line—Lancaster, N. Y.—Depew & Lancaster Light, Power & Conduit Co., 173 Central Ave., had plans prepared 12 mi. transmission line. $25,000. A. R. Tremaine, 173 Central Ave., engr.

Piers—Weehawken, N. J.—Erie Ry., 50 Church St., New York, plans rebuilding 4 piers along Hudson River which were recently destroyed by fire. $1,500,000. R. C. Falconer, 50 Church St., New York, engr.

Electrical Equipment — Cleveland, O.—Plans furnishing wire and cable, $16,500; street standards, $15,500; lanterns and equipment, $15,000; street lamps and equipment, $15,000; transformers and regulators, $18,000; switchboard and station equipment, $15,500; poles, $5,000; auxiliary equipment, $8,000 labor, $20,000; incidentals, $1,500. C. G. Beckwith, City Hall, engr.

Gas Holder — Bloomington Ill. — Union Gas & Electric Co., 312 Main St., having plans prepared steel gas holder, 10,000 cu.ft. capacity. $30,000. R. E. Chew, supt.

Grain Elevator—Chester, Ill.—H. C. Cole Milling Co. plans concrete grain elevator, 300,000 bu. capacity. $200,000. Engineer not selected.

Grain Elevator—Columbia, Ill.—Farmers Co-operative Elevator Co., having plans prepared for rein.-con. and steel grain elevator, 40,000 bu. capacity. $40,000. J. C. Gumerscheimer, pres. Private plans.

Grain Elevator—Dwight, Ill.—Farmers Co-operative Elevator Co., plans rein.-con. grain elevator. $40,000. J. Schafer, mgr. Engineer not selected.

Road Machinery—Friendship, Wis.—Adams Co. appropriated $1,000 for road machinery. J. A. McGregor, comr.

Gravel Loaders and Crushers, etc.—Green Lake, Wis.—Green Lake Co. appropriated $18,000 for gravel loaders and crushers also equipping repair shop with machine tools.

Road Machinery—Jefferson, Wis.—Jefferson Co. appropriated $13,000 for new road machinery. R. D. Royce, Ft. Atkinson, comr.

Petroleum Machinery, etc.—Lancaster, Wis.—Grant Co., appropriated $13,500 for petroleum machinery and equipping repair shop with machine tools. H. Mink, comr.

Road Machinery—Medford, Wis.—Taylor Co. appropriated $15,000 for various kinds of road machinery. C. Keinhofer, comr.

Graders and Wheelers, etc.—Montello, Wis.—Marquette Co. plans to purchase road machinery, incl. graders and wheelers. $1,500. H. Schmitz, comr.

Screening Plant, etc.—Neillsville, Wis.—Clark Co. appropriated $13,000 for screening plant, small crusher, scarifier and tractor. O. Weyhmiller, comr.

Road Machinery—Portage, Wis.—Columbia Co. appropriated $35,000 for road machinery. J. T. Henton, Court House, comr.

Road Machinery—Wausau, Wis.—Marathon Co. plans to purchase various kinds of road machinery for 1922. $4,000. J. H. Vogt, comr.

Road Machinery — Whitehall, Wis. — Trempealeau Co. appropriated $20,000 for large grader and tractor and other road machinery. E. F. Rotering, comr.

Grandstand—Cheyenne, Wyo.—Chamber Commerce plans steel grandstand. $50,000.

Transmission Line—Jamesport, Mo.—Voted $25,000 bonds for 17 mi. transmission line. Engineer not selected.

Park Improvement—Sedalia, Mo.—Making plans improving 25 acres of city park. $25,000. F. T. Leaming, city engr.

Electric Lighting and Power System—Kerwood, Ont.—Adelaide Twp. having surveys made for electric lighting and power distribution system. $38,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Arena—London, Ont.—J. E. Smallman, Elmwood Ave., plans concrete, iron and steel arena in suburbs. $60,000. Prices wanted on all materials.

Electric Lighting and Power System—London, Ont.—London Twp. having surveys made for electric lighting and power distribution system. $30,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Ice Arena—London, Ont.—Citizens Com. plans ice arena in Thames Park. $125,000. Address P. Pocock, c/o London Shoe Co., 326 Richmond St. Watt & Blackwell, Toronto Bank Bldg., archts. Noted May 26.

Electric Lighting and Power System—Muncey, Ont.—Caradoc Twp. having surveys made for electric lighting and power distribution system. $35,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Electric Lighting and Power System—Oxford Centre, Ont.—East Oxford Twp. having surveys made for electric lighting and power distribution system. $40,000. A. Mackenzie, 190 University Ave., Toronto, engr.

BIDS DESIRED

Sanitary Work—Binghamton, N. Y.—Dec. 21, by state Hospital Comn., Capitol, Albany, sanitary work-service lines, at Binghamton State Hospital, here. L. F. Pilcher, Capitol, Albany, state archt.; adv. this issue.

Highway and Roofing Materials, etc.—New York, N. Y.—Dec. 8, by Bd. Purch., Municipal Bldg., furnishing and delivering highway and roofing materials to Depts. of Parks-Brooklyn, Parks-Queens, Correction and Police Dept.; cement, broken stone and other building materials to Depts. of Correction, Parks-Manhattan, Parks-Brooklyn, Parks-Queens, Plant & Structures, Public Welfare, Water Supply, Gas & Electricity and Bellevue and Allied Hospitals; metals and castings to Depts. of Parks-Bronx, Parks-Brooklyn, Plant & Structures, Street Cleaning, Correction, Parks-Manhattan, Water Supply, Gas & Electricity, Docks and Police and Fire Depts. G. A. Whalen, comr. Plant & Structures, chn.

Signal Boxes—Cleveland, O.—Dec. 9, furnishing 300 police signal boxes, and flash light recall and signal system for Police Dept. $35,000. C. G. Beckwith, City Hall, engr.

BIDS RECEIVED

Dock—Jersey City, N. J.—Rebuilding part of Howell St. Dock, Hudson River, from Stillman-Delehanty-Ferris Co., 29 Exch. Pl., $33,125; H. Steers, 17 Battery Pl., New York, $34,500; Linde & Griffith, 4th Ave., Newark, $35,675.

Police and Fire Alarm System—North Bergen (Weehawken P. O.), N. J.—Police and fire alarm system, from Gamewell Fire Alarm Telephone Co., 70 East 45th St., New York, $129,600.

CONTRACTS AWARDED

Refined Asphalt—Brooklyn, N. Y.—E. Riegelmann, boro pres., Boro Hall, furnishing and delivering 140.000 gal. refined asphalt form to Municipal Asphalt Plant, 7th St. Basin, Gowanus Canal, to Barber Asphalt Paving Co., 233 Bway., New York, $12,320. Noted Oct. 27.

Wharf and Seawall—Tarpon Springs, Fla.—For 20 x 45 ft. concrete wharf, rebuilding concrete seawall, 6 ft. high, 18 in. base, 8 in. top, to J. B. McCrary Eng. Corp., 3rd Natl. Bank Bldg., Atlanta, Ga., $75.000.

Gas Pipe Line—Owensboro, Ky.—India Pipe Line Co., 200 mi. 12 in. gas pipe line, steel, to A. Bentley Co., 201-31 Belmont Ave., Toledo, O., $400,000, cost plus percentage basis.

Culvert — Cleveland, O. — Concrete culvert in Brookside Park, to Post Constr. Co., 10823 Fairchild Ave., $43,111. Noted Nov. 24.

Grade Separation—Dearborn, Mich.—For grade separation to carry Telegraph Rd. under Michigan Central R.R. tracks, to G. F. Bristol, 119 Winona Ave., Highland Park, $47,491. Noted Nov. 17.

Coal and Ash Handling Equipment—Milwaukee, Wis.—Sewerage Comn., coal handling equipment, to Chain Belt Co., 736 Park St., $32,700; ash handling, to Conveyors Corp. of Amer., 326 West Madison St., Chicago, $19,581. Noted Oct. 20.

Ornamental Lighting System—Oshkosh, Wis.—Ornamental lighting sytem to Monroe Electric Co., 159 North State St., Chicago, $40,526. Noted Nov. 17.

Wharf—Houston, Tex.—For concrete wharf on Houston ship channel, to T. Tellepsen, Prince Bldg., $189,140. Noted Oct. 20.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 9	New York, N. Y.	Dec. 8
Dec. 13	New York, N. Y.	Dec. 8
Dec. 13	Fullerton, Cal.	Dec. 8
Dec. 13	Lincoln, Neb.	Dec. 1
Dec. 13	Monroe, Mich.	Dec. 8
	Adv. Dec. 8.	
Dec. 13	Brooklyn, N. Y.	Dec. 8
Dec. 13	Long Island City, N. Y.	Dec. 8
Dec. 14	Reading, Pa.	Dec. 1
Dec. 15	Yakima, Wash.	Dec. 1
Dec. 16	Cleveland, O.	Nov. 24
Dec. 16	Broken Bow, Okla.	Dec. 8
Dec. 19	Buffalo, N. Y.	Dec. 8
Dec. 27	Walla Walla, Wash.	Dec. 8
	Adv. Dec. 8.	

SEWERS

Dec. 12	New York, N. Y.	Dec. 8
Dec. 13	Harrison, N. J.	Nov. 17
Dec. 13	Richmond, Va.	Dec. 1
	Adv. Dec. 1 and 8.	
Dec. 13	Phila., Pa.	Dec. 8
Dec. 14	Brooklyn, N. Y.	Dec. 8
Dec. 19	Spring Lake, N. J.	Dec. 8
	Adv. Dec. 1 and 8.	
Dec. 19	Akron, O.	Dec. 8
Dec. 20	Passaic, N. J.	Nov. 24
Dec. 20	Warren, O.	Dec. 8
	Adv. Dec. 1 and 8.	
Jan. 13	Milwaukee, Wis.	Dec. 8
	Adv. Dec. 8.	

WASTE DISPOSAL

Dec. 20	Alameda, Cal.	Dec. 8

BRIDGES

Dec. 10	Pikeville, Ky.	Dec. 1
	Adv. Nov. 24 to Dec. 8.	
Dec. 12	Riverside, Cal.	Dec. 12
Dec. 13	Phila., Pa.	Nov. 17
Dec. 14	Topeka, Kan.	Dec. 8
Dec. 16	Fresno, Cal.	Dec. 8
Dec. 16	Florida	Dec. 8
Dec. 16	McPherson, Kan.	Dec. 8
Dec. 19	Phila., Pa.	Nov. 17
Dec. 20	Illinois	Dec. 8
Dec. 21	Baltimore, Md.	Dec. 8
	Adv. Dec. 8	
Dec. 22	Madison, Wis.	Dec. 1

DAMS

Dec. 17	Phoenix, Ariz.	Nov. 17

RAILWAYS

Dec. 20	Ontario	Dec. 1

EXCAVATION AND DREDGING

Dec. 14	Jackson, Minn.	Dec. 8
Dec. 20	Carrollton, Mo.	Dec. 8
	Adv. Dec. 1 and 8.	
Dec. 20	Holly, N. Y.	Dec. 8
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Bids Close		See Eng. News-Record
Dec. 12	Washington	Dec. 1
Dec. 12	California	Dec. 1
Dec. 12	Long Island City, N. Y.	Dec. 8
Dec. 13	Morton, Wash.	Dec. 1
Dec. 13	Florence, S. C.	Dec. 1
Dec. 13	Atchison, Kan.	Nov. 17
Dec. 13	Dunedin, Fla.	Nov. 24
Dec. 13	Mill Valley, Cal.	Dec. 8
Dec. 13	Van Buren, Mo.	Dec. 8
Dec. 14	Brooklyn, N. Y.	Dec. 8
Dec. 14	Wharton, Tex.	Dec. 8
Dec. 14	Rhode Island	Dec. 1
	Adv. Dec. 1 and 8.	
Dec. 15	Huntington, W. Va.	Dec. 1
Dec. 15	Cuero, Tex.	Dec. 8
Dec. 15	Hondo, Tex.	Dec. 8
Dec. 15	Davenport, Ia.	Dec. 8
Dec. 16	West Virginia.	Nov. 24
	Adv. Nov. 24 to Dec. 8.	
Dec. 16	Blue Earth, Minn.	Dec. 8
Dec. 17	Kerrville, Tex.	Dec. 8
Dec. 19	Wadena, Minn.	Dec. 8
Dec. 19	Dallas, Tex.	Dec. 8
Dec. 19	Greenfield, Ind.	Dec. 1
Dec. 19	El Centro, Cal.	Dec. 1
Dec. 19	Elmhurst, Ill.	Nov. 17
Dec. 19	Georgetown, Tex.	Dec. 8
Dec. 19	Breckenridge, Minn	Dec. 8
Dec. 19	Benton, Ill.	Dec. 8
Dec. 19	Olton, Tex.	Dec. 8
Dec. 19	California	Dec. 8
Dec. 19	Mt. Rainer, Md.	Dec. 8
	Adv. Dec. 8.	
Dec. 20	Illinois	Dec. 8
Dec. 20	Kansas City, Kan.	Nov. 17
Dec. 20	New Mexico	Dec. 8
Dec. 21	Little Falls, Minn.	Nov. 24
Dec. 22	Pecos, Tex.	Dec. 8
Dec. 23	Iola, Kan.	Nov. 24

INDUSTRIAL WORKS

Dec. 12	Providence, R. I.	Dec. 8
Dec. 13	St. Louis, Mo.	Dec. 8
Dec. 13	Wilmington City, Ind.	Dec. 8
Dec. 15	Lansing, Mich.	Dec. 1
	Adv. Dec. 1 and 8.	
Dec. 15	Detroit, Mich.	Dec. 8
Dec. 20	Brockport, N. Y.	Dec. 8
Dec. 20	Phila., Pa.	Dec. 8
Dec. 21	Marcy, N. Y.	Dec. 8

BUILDINGS

Dec. 12	North Robinson, O.	Dec. 1
Dec. 12	Tallahassee, Fla.	Nov. 17
Dec. 12	Kalamazoo, Mich.	Nov. 24
Dec. 12	Aspinwall (Pittsburgh P. O.), Pa.	Dec. 1
Dec. 12	St. Paul, Minn.	Dec. 8
Dec. 14	Huron, S. D.	Nov. 17
Dec. 15	Plymouth, Pa.	Dec. 1
Dec. 15	Dayton, O.	Nov. 17
Dec. 15	Lawrence, Mass.	Nov. 17
Dec. 15	Delavan, Ill.	Dec. 1
Dec. 15	Independence, Kan.	Nov. 24
Dec. 15	Castalia, O.	Nov. 24
Dec. 15	Okeene, Okla.	Dec. 8
Dec. 15	Clinton, Ind.	Dec. 8
Dec. 15	Superior, Wis.	Dec. 8
Dec. 15	Dallas, Tex.	Dec. 8
Dec. 17	Elizabeth City, N. C.	Dec. 8
Dec. 19	Detroit, Mich.	Dec. 8
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Dec. 20	Phila., Pa.	Dec. 8
Dec. 20	Princeton, N. J.	Dec. 8
Dec. 20	St. Louis, Mo.	Dec. 8
Dec. 21	Willard, N. Y.	Dec. 8
	Adv. Dec. 8.	
Dec. 22	Tulsa, Okla.	Dec. 8
Dec. 23	Eldorado, Kan.	Nov. 24
Dec. 23	Toledo, Ohio	Dec. 8
Dec. 23	New Orleans, La.	Dec. 8
Dec. 27	Petaluma, Cal.	Dec. 8
Dec. 28	Flint, Mich.	Dec. 8
Dec. 29	Columbus, O.	Dec. 8
Jan. 1	Detroit, Mich.	Nov. 17
Jan. 15	Laramie, Wyo.	Sept. 29
Jan. 17	Madison, Wis.	Dec. 8
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Dec. 13	Alterations — Columbia, S. C.	Nov. 24
Dec. 14	Quarters—Savannah, Ga.	Dec. 1
Dec. 14	Water Supply System—Yorktown, Va.	Dec. 8
Dec. 15	Hospital—Marion, Ind.	Dec. 1
Dec. 19	Hospital—Milwaukee, Wis.	Dec. 1
Dec. 19	Material—Augusta, Ga.	Dec. 8
	Adv. Dec. 8.	
Dec. 20	Extension to Workroom, etc.—Oak Park, Ill.	Dec. 8
	Adv. Dec. 8.	
Dec. 20	Terminal — Vicksburg, Miss.	Dec. 8
Dec. 20	Mailing Vestibule, etc.—Oak Park, Ill.	Dec. 8
	Adv. Dec. 8.	
Dec. 21	Fire Protection System — Charleston, S. C.	Dec. 8
Dec. 28	Valve—Denver, Col.	Nov. 17
Dec. 29	Structures—Savage, Mont.	Nov. 17

MISCELLANEOUS

Bids Close		See Eng. News-Record
Dec. 12	Pier—New York, N. Y.	Dec. 8
Dec. 12	Dredge Repair—New York, N. Y.	Dec. 8
Dec. 13	Steam Asphalt Roller—New York, N. Y.	Dec. 8
Dec. 14	Fire Hydrant — Detroit, Mich.	Dec. 8
Dec. 15	Wood Paving Blocks — New York, N. Y.	Dec. 8
Dec. 20	Electric Wiring, etc—Brooklyn, N. Y.	Nov. 24
	Adv. Nov. 24 to Dec. 8.	
Dec. 21	Sanitary Work—Binghamton, N. Y.	Dec. [illegible]
	Adv. Dec. 1 and 8.	
Dec. 22	Baseball Stadium — New York, N. Y.	Dec. 8
	Adv. Dec. 8.	
Dec. 23	Oil Tanks and Boilers—New Orleans, La.	Nov. 3
	Adv. Nov. 3 to Dec. 8.	
Dec. 28	Water Supply System—Metuchen, N. J.	Dec. 8
Jan. 4	Wharf Cranes—Rochester, N. Y.	Dec. 8
	Adv. Dec. 8.	

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. C., Littleton—Plans waterworks. $50,000. H. C. Smith, clk.

N. C., Raleigh—Plans 250,000,000 gal. impounding reservoir, 750,000 gal. steel tank and tower, enlarging reservoir, pumping and filter plants, and extending 14 and 24 in. stave pipe lines. $500,000. J. B. Bray, 406 West Hargett St., engr.

Ia., Dubuque—To vote on $250,000 bonds to improve water supply system, incl. additional wells, pumping equipment, etc., D. H. Maury, 1439 West Jackson Blvd., Chicago, engr.

Mo., Caruthersville—Making plans for improvements to waterworks, incl. addition to pumping station, new mains and reservoir. $60,000. Black & Veatch, Mutual Bldg., Kansas City, engrs. Noted Nov. 17.

Ont., Long Branch—Plans c.i. distribution system, 6 in. up., valves, hydrants, water tower, etc.; water to be brought from New Toronto pumping station. $180,000. Barber, Wynne-Roberts & Seymour, 40 Jarvis St., Toronto, engrs.

BIDS DESIRED

N. Y., Brooklyn—Dec. 13, by Commissioner Water Supply, Gas & Electricity, Municipal Bldg., New York, mains in Eldert Lane, Benson, Canal, Leonard, Lorraine, Saratoga and Stillwell Aves., Dikeman, East 2nd, East 14th, West 37th, 58th, 62nd, 64th, 65th, 75th and 78th Sts., here

N. Y., Buffalo—Dec. 19, by Mayor, City Hall, c.i. pipe, special castings, valves, special piping and hydrants. E. E. Larkin, City Hall, engr.

N. Y., Long Island City—Dec. 13, by Commissioner Water Supply, Gas & Electricity, Municipal Bldg., New York, mains in Winslow Pl., 1st Ward, Hanson Pl. and 20th St., 2nd Ward, Huntley Dr., 33rd and 65th Aves., 161st, 166th, 167th and 170th Sts., 3rd Ward, here.

N. Y., New York—Dec. 9, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., furnishing, installing and connecting boiler at 98th St. pumping station.

N. Y., New York—Dec. 13, by N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., mains and appurtenances in Wadsworth Terrace, Boro of Manhattan, Carlisle Pl., Pierce Ave., West 180th and East 213th Sts., Boro of Bronx.

N. C., Elizabeth City—See "Buildings."

Mich., Monroe—Dec. 13, by F. M. Kressbach, city clk., c.i. pipe line and river crossing. Hoad & Decker, Ann Arbor, consult. engrs.; adv. this issue.

Okla., Broken Bow—Dec. 16, pumping station, reservoir and mains. $120,000. Black & Veatch, Mutual Bldg., Kansas City, Mo., engrs. Noted July 28.

Wash., Walla Walla—Dec. 27, for material incident to complete construction of 2nd part of 3rd Division of proposed additions and betterments to and extensions to water system. E. T. Churchman, city clk.; adv. this issue.

Waterworks (Continued)

Cal., Fullerton—Dec. 13, by city clerk. 320 x 240 ft. rein.-con. reservoir, 15 ft. deep. $60,000.

BIDS RECEIVED

N. Y., Syracuse—Bd. Contract & Supply, City Hall, opened bids Dec. 5, laying 3,200 lin.ft. 36 in. c.i. pipe in Sect. 1 of 3rd Skaneateles-Syracuse Conduit, from A. L. Anderson & Bros., Altoona Trust Bldg., Altoona, Pa., lead joints, $115,156, leadite joints, $109,980, Mondo Constr. Co., C. B. Bldg., lead joints, $158,050, metallium joints $151,650, Scott Bros., Arlington Blk. Rome, lead joints, $167,944, metallium joints, $161,544; furnishing and laying 36 in. pipe incl. all specials, from Gallup, Dickinson & Houlihan, Syracuse, $334,940, Booth & Flinn, 1942 Forbes St., Pittsburgh, Pa., $343,625, T. A. Gillespie Co., 50 Church St., New York, $392,225; furnishing 36 in. c.i. pipe, from Warren Fdry. & Machine Co., 11 Bway., New York, $227,050, U. S. Cast Iron & Fdry. Co., Morris Bldg., Philadelphia, Pa., $248,438; furnishing all gate and air valves from Eddy Valve Co., South Waterford St., Troy, $6,515, Ludlow Valve Co., Adams St., Troy, $6,615. Noted Nov. 24.

Mich., Detroit—Electrical equipment for pumping station on Randolph St., from Turner Eng. Co., 452 West Larned St., $50,-461; Miller & York, 451 Larned St., $53,-845; J. Livingstone & Co., 13 Campau Bldg., $54,790. Noted Nov. 3.

CONTRACTS AWARDED

Tex., Wichita Falls—Wichita Co. Water Impvt. Dist. 1, Morgan Bldg., reservoir and canal system, incl. earth storage dam, outlet works, spillway, etc., diversion dam with concrete overflow, levee with outlet gates, and irrigation distributing system, involving 500,000 ft. lumber, placing of flumes, gates and other items, 1,400,000 cu. yd. earth embankment, 300,000 cu.yd. earth levee, 60,000 cu.yd. rubble, plain and rein.-con., 45,000 cu.yd. rock rip rap, 20,000 cu. yd. gravel blanket, 3,700,000 cu.yd. earth excav. and borrow for canals and laterals, to Callahan Constr. Co., c/o E. S. Heyser, Wichita Falls, $3,354,211. Noted Nov. 3 under "Waterworks" and "Dams."

Sewers

PROPOSED WORK

N. J., Jersey City—Had plans prepared Fisk St. system, 13,400 lin.ft. 18-24 in. vitr., 4,255 lin.ft. 30-102 in. segment block, 50 lin.ft. 8 ft. 6 in. concrete and 97 lin.ft. 8 ft. 6 in. steel pipe, etc. $203,000. C. A. Van Keuren, City Hall, city engr.

Pa., Phila.—Takes bids about Dec. 21, concrete and brick branch sewers, $300,000. C. Frommer, City Hall, engr.

N. C., Littleton—Plans to install sewerage system and improve various streets. $75,000. H. C. Smith, clk.

Ill., Mt. Vernon—Plans 27,003 ft. intercepting sewers, settling tank, trickling filter, sludge bed and water supply. $180,-000. A. C. Stanfield, city engr.

Ill., North Chicago—Rejected bids opened Nov. 22, 10-20 in. vitr. tile sewers. $30,-000. C. M. Powell, City Hall, engr. Noted Nov. 17.

Wis., Westby—Making plans sewerage system, incl. sanitary and storm sewers. $50,000. W. G. Kirchoffer, Vroman Blk., Madison, engr. Noted Nov. 17.

Ia., North English—Making plans sewerage system. $30,000. H. R. Green, Cedar Rapids Savings Bank Bldg., Cedar Rapids, Ia., engr.

Minn., Northfield—Making plans sanitary and storm sewers Worthington Eng. Co., 317 McKnight Bldg., Minneapolis, engrs.

Ont., Oshawa—Making surveys 8,800 ft. 12-24 in. vitr. tile sanitary sewer in Westmount St. $120,000. N. G. McDonald, town engr.

BIDS DESIRED

N. Y., Brooklyn—Dec. 14, by E. Riegelmann, boro pres., repairs to sewer in Foster Ave. between Ocean Parkway and East 7th St.

N. Y., New York — Dec. 12, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., altering and improving sewer in West 20th St. between 6th and 7th Aves.; repairing 15 in. vitr. sewer in East 101st St. between Park and Madison Aves.

N. Y., New York—Dec. 12, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., sewers and appurtenances in East Tremont Ave., west side, between Appleton and Coddington Aves., etc. $150,000.

N. J., Spring Lake—Dec. 19, by Mayor and Council, sewer extensions and ejector station fully equipped. J. M. Braly, boro engr.; adv. this issue.

Pa., Phila.—Dec. 13, 250 ft. sewer in Blain St., $3,200, 493 ft. Columbia Ave., $5,000, 560 ft. Comly St., $6,200, 860 ft. Devereaux St., $10,000, 741 ft. Edmund St., $8,000, 116 ft. Emily St., $1,500, 492 ft. 4th St., $5,500, 1,000 ft. 52nd St., $15,000, 767 ft. Hartwell Lane, $10,000, 1,680 ft. Nedro Ave., $25,200, 675 ft. Ruscomb St., $8,000, 3,405 ft. 16th St., $35,900, 1,315 ft. 67th Ave. N., $16,000, 750 ft. Tacony St., $10,-000, 425 ft. Tioga St., $5,000, 472 ft. Torresdale Ave., $5,900, 1,926 ft. Upsal St., $25,000, 723 ft. Wakeling St., $10,000, 3,280 ft. Broad St. from Oaklyn St. to 71st Ave., $50,000, 368 ft. Broad St. from 71st Ave. N. to point 368 ft. north, $3,600, 2,510 ft. Ognotz Ave. from Nedro Ave. to Church Lane, $30,000, 3,950 ft. Ognotz Ave. from 72nd to 74th Aves., also in Walnut Lane and Alsop St., $45,000, 1,490 ft. York Rd. from Champlost Ave. to Sparks St., $17,-900, 3,070 ft. York Rd. from Oak Lane to Cheltenham Aves., $35,000; all 2 ft. 3 in. x 1 ft. 6 in. vitr. brick. C. Frommer, City Hall, ch. engr.

N. C., Elizabeth City—See "Buildings."

O., Akron—Dec. 19, by Director Pub. Serv., storm sewer in Maple St., 6,000 ft. 30-63 in. vitr. brick or segmental block, 5,000 ft. 8-27 vitr. tile block, 550 cu.yd. concrete. J. E. Root, 300 Delaware Bldg., engr.

O., Warren—Dec. 20, by E. H. Braunberns, dir. Pub. Serv. combined sewer beginning at Mahoning River near mouth of Red Run and terminating near intersection of Dana Ave. and Hughes Rd. A. Potter, 50 Church St., New York, consult. engr.; adv. this issue.

Wis., Milwaukee—Jan. 13, by Sewerage Comn., at offices in City Hall, sewage disposal plant, etc. J. H. Fowles, secy.

BIDS RECEIVED

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Dec. 1, storm and sanitary sewers in (1) Ave. S, (2) Fenimore St., (3) 64th St., from Tomasetti & Co., Inc., 1133 60th St., (1) 82 87/100% of engineers estimate ($28,000), (2) 88 98/100% ($3,000), (3) 94 97/100% ($2,000); J. J. Guinan Contg. Co., 2314 Gravesend Ave., (1) 91%; G. L. Schrade, (1) 101 37/100%; Murphy Bros., 8856 26th Ave., (2) 99%, (3) 71 35/100%; J. Jennings, Belle Harbor, (3) 96 84/100%. Noted Nov. 24.

CONTRACTS AWARDED

N. J., Newark—Passaic Valley Sewerage Comrs., 128 Market St., to Harrison & Craig Co., 31 Clinton St., Northerly portion of Sect. 29, Brown St. Branch Intercepting Sewer, 4,432 lin.ft. earth excav. and refill, in trench for 24 in. concrete sewer, $14.20 per lin.ft., 598 lin.ft. earth excav. and refill in trench for 15 in. vitr. pipe sewer $3.50, 1,500 cu.yd. concrete masonry etc., $15, etc.; total $102,767. Noted Oct. 27.

O., Canton—Sect. 2 of Shriver Run Sewer from 11th St. N. E. to 16th St. N. E., brick, to River Constr. Co., Schofield Bldg., Cleveland, $65,873.

Ill., Benton—Sewers in Dist. 1, to J. L. Walker Co., Hamilton, O., $223,599. Noted Nov. 17.

Ill., Elmhurst—For 8-12 in. tile sewers, Moureau Sub-Div., to T. H. Iglehart, 209 South La Salle St., Chicago, $30,000. Noted Oct. 6.

Wis., Shullsburg—For 1 mi. sanitary and storm sewers in entire village, to Gray Robinson Constr. Co., Manitowoc, $25,000.

Okla., Pawhuska—For 18-36 in. storm sewers, to M. R. Ammerman, 437 South Market St., Wichita, Kan., and J. Stanton Constr. Co., Leavenworth, Kan., $25,000. Noted Sept. 29.

Waste Disposal

BIDS DESIRED

Cal., Alameda—Dec. 20, garbage incinerator, 48 ton daily capacity. $55,000. C. E. Hickok, city mgr.

CONTRACTS AWARDED

N. J., Atlantic City—Removal of garbage for 1 year, to McReever Bros., Tennessee Ave., $139,900.

Bridges

PROPOSED WORK

N. Y., New York—Dept. Plants & Structures, Municipal Bldg., had plans prepared for steel and concrete lift bridge, 20 ft. above high water at its centre and 11 ft. at abutments, over Bronx River on line with Westchester Ave. $250,000.

North Carolina—State Hy. Comn., Raleigh, plans rein.-con. arch or steel bridge over Yadkin River between Richmond and Anson Counties, State Project 610. $150,-000. C. M. Upham, state highway engr.

Florida—State Rd. Dept., Tallahassee, having plans prepared 300 ft. bridge 16 or 20 ft. over Sebastian River between Brevard and St. Lucie Counties. Cost between $100,000 and $200,000. C. A. Browne, state highway engr.

Alabama—See "Streets and Roads."

Alabama—State Hy. Dept., Montgomery, having plans prepared 430 ft. bridge with one 120 ft. steel and ten 28 ft. concrete T beam girder spans on concrete substructure over Cahaba River, on Jefferson-St Clair Co. line, Jefferson Co. $40,000. W. S. Keller, state highway engr.

Ala., Talladega—Talladega Co. having plans prepared two 110 ft. steel spans. L. G. Smith, Montgomery, state highway bridge engr.

Tennessee—State Highway Dept., Nashville, takes bids about January, rein.-con. bridge over Rocky River, Van Buren Co. $50,000. D. Q. McComb, ch. engr.

Kan., Hutchinson—Making plans Maple St. Bridge, concrete. $26,000. R. B. Lee, Hutchinson, engr.

Tex., Beaumont—See "Streets and Roads."

Tex., Gause—Milam Co. (Cameron) and Robertson Co. (Franklin), had plans prepared for 250 ft. steel span bridge over Brazos River, here. $120,000. A. F. Mitchell, Cameron, co. engr.

Tex., Orange—See "Streets and Roads."

Wash., Raymond—State Hy. Dept., Olympia, had plans prepared steel bridge (with perpendicular draw affording 125 ft. passageway for ships) over Willapa River, near here. $175,000. J. Allen, Olympia, state highway engr.

BIDS DESIRED

Md., Baltimore—Dec. 21, by Bd. Awards of Baltimore City, at office City Register, City Hall, paper mill bridge and approaches over Gunpowder River. W. F. Broening, pres. Bd. Awards; adv. this issue.

Florida—Dec. 16, by State Rd. Dept., Tallahassee, four 40 ft. approach spans to Apalachiccola Bridge, 500 cu.yd. concrete, 40 ton steel and piling, etc., also operators house on bridge. C. A. Browne, state highway engr.

Kentucky—Dec. 21, State Hy. Comn., Frankfort, removing old bridge and abutments and constructing temporary bridge, 250 ft. steel span, rein.-con. abutments on creosoted piles, 30 ft. roadway, on Louisville-Paducah Rd. over Clover Creek, Breckenridge Co.; 80 ft. steel span superstructure, Sta. 406 plus 65, Mayo Trail East Fork Creek. 20 ft. concrete roadway, Boyd Co. P. Butler, state bridge engr.

Illinois—Dec. 20, Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, following bridges 1 concrete and substructure for 1 steel, Route 13, Sect. 9-B, Saline Co.; 1 Superstructure for steel, Route 13, Sect. 9-C, Saline Co.; 1 concrete and substructure for steel, Route 13, Sect. 10-B, Gallatin Co.; 1 superstructure for steel, Route 13, Sect. 10-C, Gallatin Co.; 3 concrete, Route 13, Sect. 11-B, Gallatin Co.; 2 concrete, State Aid 6, Sect. F, Rock Island Co.; 1 concrete and 1 steel, Route 13, Combination E, Saline Co.; 1 concrete and 1 steel, Route 13, Combination F, Gallatin Co.; 5 concrete and 2 steel superstructures, Route 13, Combination G, Saline-Gallatin Co.; 2 steel superstructures, Route 13, Combination H, Saline-Gallatin Co.; 5 concrete and 2 steel Route 13, Combination I, Saline-Gallatin Co. C. Older, ch. highway engr.

Kan., McPherson—Dec. 16, by Comrs. McPherson Co., one 33 ft. steel I beaf bridge, concrete floor and abutments and one 270 ft. steel bridge, to have three 50 ft. and one 120 ft. spans, concrete floor, piers and abutments. H. A. Rowland, McPherson, engr.

Kan., Topeka—Dec. 14, by Clerk Shawnee Co., Grove Bridge, 100 ft. steel truss or rainbow span; Duncan Bridge, two 40 ft. through girder or rainbow; Wanamaker Bridge 20 ft. concrete slab; Mill Dam Bridge, 120 ft. steel truss or rainbow span; Seward Bridge, 110 ft. steel truss; Nedeau Bridge 35 ft. T girder; Lawton Bridge 40 ft. T girder; County Line Bridge 40 ft. T girder. A. C. Lagerwall, Topeka, engr.

Cal., Fresno—Dec. 16, by Bd. Supervs. Fresno Co., 3 bridges and 25 culverts on Centerville-Dunlop Rd., 243 ft. 12-30 in. concrete pipe, 172 ft. 8-18 in. corrugated metal pipe, 324 cu.yd. rein.-con., 18,900 lb. reinforcing, 59,319 ft. b.m. bridge lumber. C. P. Jensen, Cory Bldg., engr.

Bridges (Continued)

Cal., Riverside—Dec. 12, by Bd. Supervs. Riverside Co., 1,104 lin.ft. trestle, 88,000 cu.yd. excav. A. C. Fulmor, co. surv.

BIDS RECEIVED

O., Shadesville—Comrs. Franklin Co. (Columbus) opened bids Nov. 29, 890 ft. concrete bridge to have 9 arches, 24 ft., over Scioto River, here, from Stein Constr. Co., 204 Grand Ave., Milwaukee, Wis., $166,667, McGucken Constr. Co., 425 East Water St., Milwaukee, Wis., $205,312; several contractors submitted bids for steel structures as follows, E. Elford, 307 East Gay St., Columbus, $144,453, E. M. Scully, Columbus (3 types) $135,000, $184,000 and $174,000, Capitol Constr. Co., 849 Reynolds Ave., Columbus (3 types) $138,270, $140,454 and $141,767. Noted Nov. 3.

Minn., New Ulm—State Hy. Comn., St. Paul, opened bids Dec. 2, Bridge 3660, one 171 ft. steel and two 75 ft. truss spans on concrete abutments and piers; Bridge 3661, three 75 ft. spans on concrete abutments and piers, over Minnesota River near here, for Brown and Nicollet Counties, City of New Ulm and State, from Great Northern Bridge Co., 225 Kasota Bldg., Minneapolis, $48,786; Illinois Steel Co., 836 Security Bldg., Minneapolis, $48,792. Noted Nov. 24.

CONTRACTS AWARDED

Pa., Pittsburgh—Reconstructing and improving bridge connecting Beechwood Blvd. and Schenley Park, to E. M. Wichert Co., Bowman Bldg., $196,264..

Illinois—Dept. Pub. Wks. and Buildings, Springfield, following bridges, Route 37, Jefferson Co., 1 concrete and substructure for 1 steel, Sect. 1-B, and 3 concrete, Sect. 1-D, to H. R. Cawood, Mt. Vernon, $30,362 and $15,873 respectively; 1 superstructure for steel, Sect. 1-C, to Rochester Bridge Co., Rochester, Ind., $6,832. Noted Nov. 24.

Mich., Detroit—For steel bascule bridge 156 ft. long, 54 ft. wide, over River Rouge, Fort St., to Bethlehem Steel Bridge Co., South Bethlehem, Pa., $272,500. Noted Dec. 1.

Dams

PROPOSED WORK

Mo., Lamar—See "Industrial Works."

CONTRACTS AWARDED

Tex., Wichita Falls—See "Waterworks."

Railways

PROPOSED WORK

New York—See "Miscellaneous under Rochester."

Excavation and Dredging

PROPOSED WORK

Ia., Lansing—J. Boeckh, H. Haas and others, plan levee and drainage work, to reclaim 12,500 acres bottom land between Chicago, Burlington & Quincy R.R. and Mississippi River, in Crawford Co. C. H. Young, Muscatine, engr.

Mont., Red Lodge—Carbon Co. had plans prepared Red Lodge-Rosebud Irrigation Project, to reclaim 12,000 acres between East Rosebud and river and Red Lodge, Creek. $190,000. D. Lay, Red Lodge, dist. engr. Noted Sept. 15.

Mo., Skidmore—Skidmore-Maitland D.D., c/o G. L. Larkin secy., Skidmore, probably take bids in June, for system in Nodaway and Holt Counties, 355,000 cu.yd. excav., $44,200; one 120 ft. highway bridge, 16 ft. roadway, $5,800. W. B. Hazen, Commercial Bldg., St. Joseph, engr.

Okla., Tulsa—Having plans prepared 2½ mi. open ditch and 2 bridges, Park View D. D. 2. $40,000. Hughes Eng. Co., 304 Bank Commerce Bldg., engrs.

Idaho, Twin Falls—Milner Low Lift Irrigation Dist. plans 500 hp. motor and 24 in. centrifugal pump in main plant; also new plant lifting water out of present 70 ft. canal to higher canal, 46 ft. additional, and covering 800 acres, incl. two 40 hp. induction motors, 10 in. pumps, 1000 ft. 20 in. pipe and 3 mi. canal 5 ft. bottom, $50,000. E. V. Berg, Twin Falls, engr.

BIDS DESIRED

N. Y., Holley—Dec. 20, by C. L. Cadle, supt. Pub. Wks., Albany, removing material from canal prism at Orr's Bridge, east of here, Terminal Contr. 207.

Minn., Jackson—Dec. 14, by P. D. McKellar, aud. Jackson Co., drainage work in Jackson and Noble Counties, incl. Judicial Ditch 65, 15,750 ft. 6-24 in. tile, $10,225; Judicial Ditch 76, 73,323 ft. 6-30 in. tile and 15 retaining walls, $143,094; Judicial Ditch 83, 18,040 ft., 6-26 in. tile, $16,436; Judical Ditch 84, 73,600 ft. 6-32 in. tile and 15 retaining walls, $122,830.

Mo., Carrollton—Dec. 20, by Norborne D. D., 100 mi. ditch and levee work. Elliott & Harman Eng. Co., Peoria, Ill., engrs.; adv. this issue.

CONTRACTS AWARDED

Tex., Wichita Falls—See "Waterworks."

Streets and Roads

PROPOSED WORK

N. Y., Rochester—See "Miscellaneous."

North Carolina—State Hy. Comn., Raleigh plans grading, bridging and surfacing 10.5 mi. road from Statesville to Turnersburg, State Project 641, Iredell Co., $50,000, 10.4 mi. from Charlotte to Gaston Co. line, toward Mt. Holly, State Project 656, Mecklenburg Co., $50,200, 6.1 mi. from Anson Co. line to Rockingham, State Project 662, Richmond Co., $30,000; clearing, grading, bridging and surfacing 12.1 mi. from Stanly Co. line to Granite Quarry, State Project 669, Rowan and Cabarrus Counties, $60,000, 12.5 mi. from Rockingham to South Carolina line, State Project 664, Richmond Co., $62,000, 13.5 mi. from Ellerbe Springs to Montgomery Co. line, State Project 663, Richmond Co., $67,500, 13.8 mi. from Charlotte to South Carolina line, State Project 657, Mecklenburg Co., $70,000; clearing, grading and surfacing 11.7 mi. from Turnersburg to Yadkin Co. line, State Project 642, Iredell Co., $55,000; grading and surfacing 4.4 mi. from Cabarrus Co. line to Landis, State Project 670, Rowan Co., $25,000. C. M. Upham, state highway engr.

North Carolina—State Hy. Comn., Raleigh, plans clearing, grading and surfacing 13 mi. road from Laurenburg to Hoke Co. line, State Project 678, Scotland Co., $70,000, 11.5 mi. from Laurenburg to Richmond Co. line, State Project 679, Scotland Co., $56,000; grading, bridging and surfacing 3.7 mi. from Iredell Co. line to end of penetration road, State Project 672, Rowan Co., $27,000; grading and surfacing 6.8 mi. from Salisbury toward Statesville, State Project 671, Rowan Co., $35,000. C. M. Upham, state highway engr.

N. C., Littleton—See "Sewers."

N. C., Marion—McDowell Co. plans clearing, grading and bridging 7.5 mi. road. $53,000. H. F. Little, chn. co. highway comn.

N. C., Waynesville—Haywood Co. plans 5 mi. road from here to Dellwood, concrete, $150,000; 5 mi. road from Canton to Woodrow, asphaltic or concrete, $145,000. T. L. Gywn, Springdale, chn. bd. 40. comrs.

N. C., Wentworth—Rockingham Co. plans 10,700 sq.yd. asphalt pavement from Dillons Store to Carolina Heights, near Spray, 18 ft. $32,000. M. L. Heiner, Spray, co. comr.

Florida—State Rd. Dept., Tallahassee, plans paving 54 mi. Dixie Highway, 16 ft., bituminous macadam and asphalt. $600,000. Cost to be borne by State Rd. Dept. and counties. C. A. Browne, state highway engr.

Fla., Miami—Dade Co. having plans prepared paving 2 mi. Beach Drive from Fulford to Broward Co. line, 16 ft. $29,000.

Fla., Sebring—Highlands Co. plans paving 2 mi. road from Lake Annie to Josephine Creek, 16 ft. penetration macadam or asphalt. $35,000. C. A. Browne, Tallahassee, state highway engr.

Alabama—State election Jan. 30, to vote on $25,000,000 bonds for highways and bridges. W. S. Keller, Montgomery, state highway engr.

Tennessee—State Hy. Dept., Nashville, lets contracts early in 1922 112 mi. Federal aid road projects in various counties, 16 and 18 ft. D. Q. McComb, Nashville, cn. engr.

O., Cleveland—Plans paving East 90th, East 91st, East 93rd, East 94th, East 96th, East 97th, East 98th, East 99th, East 105th, East 107th, East 108th, East 110th, East 111th, East 112th, East 114th, East 115th, East 116th, East 118th, East 119th, East 120th, East 123rd, East 124th and East 125th Sts. $250,000. Will mature in spring. R. Hoffman, City Hall, engr.

O., Dayton—Montgomery Co. plans paving 3 mi. Germantown-Middletown Rd. from Germantown to Butler Co. line, concrete or brick on concrete. $60,000. P. S. Bookwalter, Dayton, co. surv.

Mich., Detroit—Plans prepared paving 12th St. from Fenkel to Pilgrim Aves., $30,910, Canton Ave. from Harper to Mound Aves., $9,045, both 26 ft., asphalt on 8 in. concrete; also 10 alleys, 13-20 ft., 1 course concrete, $22,355. C. W. Hubbell, city engr.

Ill., Champaign—Making plans paving West Clark St., concrete. $30,000. F. C. Lohman, City Hall, engr.

Ill., Winnetka—Making plans paving Foxdale Rd., concrete. $30,000. Windes & Marsh, 598 Birch St., engrs.

Wis., Juneau—Dodge Co. voted to improve following, [illegible] mi. Waupun-Beaver Dam Rd., $128,000, 4 mi. Juneau-Theresa Rd., $150,000, 7½ mi. Columbus-Clyman Rd., $200,000, 7 mi. Trunk Highway 29, Juneau-Histisford Rd., $225,000, all foregoing 18 ft. concrete; 1½ mi. South Beaver Dam Rd., $25,424, ½ mi. Clyman-Village Rd., $10,000, both 9 ft., concrete; grading 3½ mi. Watertown-Hustisford Rd., $30,000; graveling 3 mi. Beaver Dam-Randolph Rd., $30,000, 3 mi. Rubicon-Theresa Rd., $24,000, 4½ mi. Horicon-Iron Ridge Rd., $40,000, 4 mi. Portland-Danville Rr., $18,000, all 16 ft.; Federal aid construction on State Trunk Highway 15, concrete, $52,500. Total $1,215,424. E. T. Klug, comr.

Wis., Sheboygan Falls—Making plans paving 1.1 mi. Pine, Mill, York, School and Elm Sts., 22-25 ft., rein.-con., concrete curbs and gutters. $45,000. J. Donohue, 608 North 8th St., Sheboygan, engr.

Wis., West Bend—Washington Co. authorized sale of $700,000 bonds improving following roads, 7½ mi. Trunk Highway 15, from 2 mi. west of Schleisingerville to Dodge Co. Line; 5 mi. Trunk Highway 20 from Trunk Highway 15 to city of Hartford; 8½ mi. Trunk Highway 55, from paving south of here, north to Fond du Lac Co. line; all 18 ft. concrete.

Ia., Carroll—Carroll Co. plans grading 3 mi. Primary Rd. Project 46 between Coon Rapids and Greene Co. line, and section of road in Coon Rapids. $45,000. C. H. Hill, Carroll, engr.

Ia., Clinton—Clinton Co. making plans paving 2 mi. Ridge Rd. through Clinton, Charlotte and Goose Lake. $50,000. E. Lorenzen, Court House, engr.

Ia., Tipton—Making plans paving 12 blocks. $40,000. Tschirgi & Sons, Amer. Trust Bldg., Cedar Rapids, engrs.

Minn., Northfield—Making plans paving 10,000 sq.yd. $33,000. Worthington Eng. Co., 317 McKnight Bldg., Minneapolis, engrs.

S. D., Beresford—Plans paving 10 blocks. $35,000. E. K. Mather, clk. Engineer not announced.

Missouri—State Hy. Dept., Jefferson City, plans 6.693 mi. road from Mound City eastward, State Aid Project 20.37, Holt Co., 70,647 cu.yd. earth excav., 8,719 cu.yd. borrow, 26,922 cu.yd. per 100 ft. overhaul and 201.2 cu.yd. concrete masonry, etc., $48,973; 2.841 mi. road from Grant City southward, State Aid Project 20.117, Worth Co., 47,080 cu.yd. earth excav., 97,304 cu.yd. overhaul and 44.2 cu.yd. concrete masonry, etc., $29,091. A. Graham, state highway engr.

Missouri—State Hy. Dept., Jefferson City, plans 5.723 mi. road from Alton eastward, State Aid Project 20.123, Oregon Co., 43,930 cu.yd. earth excav., and 323.5 cu.yd. concrete masonry, etc. $31,577. A. Graham, state highway engr.

Mo., Clinton—Plans to pave various streets, vitr. brick on concrete. $35,000. H. C. Allen, Clinton, engr.

Tex., Beaumont—Jefferson Co. election Dec. 20, $2,000,000 bonds permanent paving state and main county highways, also building large bridge over Neches River. Address J. B. Peek, co. judge.

Tex., Brady—McCulloch Co. election Dec. 20, $600,000 bonds grading and gravel surfacing state and main lateral county highways, 16 ft. E. A. Burrows, co. engr.

Tex., Franklin—Robertson Co. voted $150,000 bonds to grade and gravel surface Rd. Dist. 7, 16 ft. L. Acker, Nacogdoches, co. engr.

Tex., Orange—Orange Co. election Dec. 23, $700,000 bonds paving Highway 3 and county highway also building bridge over Sabine River. J. E. Johnson, co. engr.

Tex., Pecos—Reeves Co. making plans grading and gravel surfacing 19.94 mi. Toyahvale-Kent Rd., 16 ft. $71,703. A. J. Adcock, Grandfalls, engr.

Okla., Bigheart—Having plans prepared concrete paving 4 blocks, 56 ft. $41,000. Hughes Eng. Co., 304 Bank of Commerce Bldg., Tulsa, engrs.

Okla., Wynnwood—Having preliminary plans prepared paving Main St. $105,000. V. V. Long & Co., Colcord Bldg., Oklahoma City, engrs.

Cal., Newman—Takes bids about Dec. 13, grading and paving R, Yolo, P, Tulare, Merced and other streets, 261,741 sq.ft. 1½ in. Warrenite on 3 in. black base, 132,753 sq.ft. 1½ in. Warrenite on 3½ in black base, 432,842 sq.ft. grading, 8,186 lin.ft. com-

Streets and Roads (Continued)

bined curb and gutter, 2,519 lin.ft. gutter, 882 lin.ft. curb, 2,410 sq.ft. concrete paving, 20,430 sq.ft. 4 in. concrete sidewalk, etc. $155,214. W. R. Sherman, Newman, engr.

Ontario — Dept. Provincial Highways, Parliament Bldgs., Toronto, soon receives bids for 36.95 mi. concrete pavement, 25.25 mi. asphalt pavement, 12.65 mi. bituminous penetration macadam, 9 mi. macadam road, 43.8 mi. macadam base, 43¾ mi. earth and rock work, 300 mi. grading, Prince Edward Bridge in Belleville, 1,000 concrete culverts and extensive graveling. $5,000,000. G. Hogarth, Parliament Bldg., Toronto, ch. engr.

BIDS DESIRED

N. Y., Brooklyn—Dec. 14, by E. Riegelmann, boro pres., Boro Hall, paving Bay 28th St. from Bath to Cropsey Aves., Clara St. from Chester Ave. to Dahill Rd., Dumont Ave.from Cleveland to Elton Sts., East 7th St. from Ditmas to 18th Aves., Ave. H from Ocean Parkway to East 7th St., Lott Ave. from Amboy St. to Hopkinson Ave., Newport St. from Christopher Ave. to Sackman St. and from Powell to Junius Sts., Rugby Rd. from Newkirk Ave. to point 320 ft. north of Foster Ave., Van Sinderen Ave. from Fulton St. to Atlantic Ave., West 28th St. from Mermaid to Neptune Aves., 20th Ave. from 83rd to 86th Sts., 21st Ave. from 78th to 80th Sts., 48th St. from 9th to 10th Aves., 58th St. from Ft. Hamilton Parkway to 9th Ave., 67 St. from 3rd to 4th Aves., 67th St. from Ft. Hamilton Parkway to 10th Ave., 75th St. from 20th to 21st Aves., 77th St. from 15th to 16th Aves., 78th St. from 6th to 7th Aves., 90th St. from Ridge Blvd. to 3rd Ave., Ridge Blvd. from 79th to 86th Sts., permanent asphalt on 6 in. concrete; grading sidewalk space, curbing and flagging Division Pl. from Kingsland to De-Bevois Aves.; grading, curbing and laying sidewalks on Van Sinderen Ave. from Fulton St. to Atlantic Ave., 21st Ave. from 78th to 80th Sts., and 78th St. from 21st Ave. to Bay Parkway; grading, curbing, laying and relaying sidewalks on 20th Ave. from 83rd to 86th Sts., Proposition 1, 20th Ave. from 83rd to 86th Sts., Proposition 2.

N. Y., Long Island City—Dec. 12, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., paving Decatur St. from Forest to Cypress Aves., sheet asphalt; grading 107th Ave. from 158th to 159th Sts.; grading and guttering 3rd and 130th Sts., repaving Kingsland and Jamaica Aves.

Md., Mt. Rainier—Dec. 19, at office Mayor and Common Council, cinder road surfacing and appurtenant work on Bunker Hill Rd. and 30th St. B. R. Sherwood, clk.; adv. this issue.

Illinois—Dec. 20, Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 5.96 mi. Route 7, Sect. 3, Henry Co.; 1.59 mi. Route 10, Sect. 28, Piatt Co.; 2.2 mi. Route 10, Sect. 32, Champaign Co.; 3.02 mi. Route 12, Sect. 16, Marion Co.; 7.2 mi. Route 15, Sect. 16, Jefferson-Wayne Co.; 4.98 mi. Route 15, Sect. 17, Wayne Co.; 5.59 mi. Route 15, Sect. 18, Wayne Co.; 17.77 mi. Route 15, Combination A, Jefferson-Wayne Co.; 6.21 mi. Route 28, Sect. 7, Henry-Bureau Co.; 5.68 mi. Route 28, Sect. 8, Bureau Co.; 11.89 mi. Route 28, Combination B, Henry-Bureau Co.; 5.8 mi. Route 31, Sect. 3, Adams Co.; 5.7 mi. Route 31, Sect. 4, Adams Co.; 2.09 mi. State Aid 10, Sect. E, Iroquois Co.; 11.5 mi. Route 31, Combination C, Adams Co.; all foregoing 18 ft., alternate bids on following types, concrete (Portland cement), 4 in. monolithic brick, bituminous concrete with and without binder course. Grading 7.21 mi. Route 13, Sect. 9-A, Saline Co., 6.32 mi. Route 13, Sect. 10-A, Gallatin Co., 6.42 mi. Route 13, Sect. 11-A, Gallatin Co.; 19.95 mi. Route 13, Combination D, Saline-Gallatin Co., 30 ft. 0.3 mi. Project 8, Sect. V-3, Macoupin Co., 32 ft. C. Older, ch. highway engr.

Ill., Benton — Dec. 19, grading, paving and building sewers in ½ mi. South Main St., 8,613 sq.yd. concrete, 5,500 ft. curb, 5,800 cu.yd. earth excav., and 1,771 ft. 10-24 in. vitr. pipe. $46,833. C. B. Mautz, city engr.

Ia., Davenport—Dec. 15, by J. Wagner, aud. Scott Co., grading and paving 3 mi. Davenport-Mt. Joy-Gambril Rd., 27,589 cu. yd excav., 32,354 sq.yd. paving, 6,903 lin. ft. 6 in. and 2,000 ft. 8 in. tile; Davenport-Le Claire Rd., 64,297 cu.yd. earth and 1,778 cu.yd. rock excav., 2,374 ft. 6-12 in. tile. $142,000. J. M. Malloy, Davenport, engr.

Minn., Breckenridge—Dec. 19, paving 7 blocks 8th St. N. from Minnesota Ave. to Bede Ave. and 5th St. from New York to Bede Aves. $25,000. R. R. Waite, clk. Noted Sept. 15.

Minn., Blue Earth—Dec. 16, by J. L. Herring, aud. Faribault Co., gravel surfacing 19 mi. Federal Aid Project 119, State Rd. 2, 45,000 cu.yd. gravel. $32,000. L. Quarve, Blue Earth, engr.

Minn., Wadena—Dec. 19, by N. Peterson, clk., for 16,391 sq.yd. pavement. $60,000. J. W. Shaffer & Co., 917 New York Life Bldg., Minneapolis, engrs. Noted Feb. 24.

S. D., Winner—Jan. 9, 30,000 sq.yd. paving. $115,000. Smith & Reeves, Mitchell, engrs. Noted Mar. 17.

Mo., Van Buren—Dec. 13, by Carter Co. grading 4 mi. road. $40,000. Elston, Axon & Russell, McDaniels Bldg., Springfield, engrs.

Tex., Cuero—Dec. 12, by J. L. Boal, judge De Witt Co., clearing, grading and gravel surfacing 10.31 mi. State Highway 29, 16 ft., Federal Aid Project 114. J. G. Irby, co. engr. Noted Nov. 10.

Tex., Dallas—Dec. 19, by Comrs. Dallas Co., paving with asphaltic macadam and gravel surfacing 12.5 mi. Preston Rd., $207,581; 25.7 mi. Irving-Coppell Rd., $306,000. Nagle-Witt-Rollins Eng. Co., Amer. Exch. Bank Bldg., engrs.

Tex., Georgetown — Dec. 19, by F. D. Love, judge Williamson Co., grading and surfacing 7.51 mi. State Highway 36-B, Federal Aid Project 255, 3,504 cu.yd. borrow, 25,564 cu.yd. roadway, 280 cu.yd. loose and 137.5 cu.yd. solid rock excav., 434 cu.yd. concrete, 34,999 lb. reinforcing, 12,839 cu.yd. limestone shale. $40,765. R. A. Nichols, co. engr.

Tex., Hondo—Dec. 15, by R. J. Noonan, judge Medina Co., grading and gravel surfacing 2.85 mi. Highway 2, The Meridian Highway, from Frio Co. line northeast, 397.4 cu.yd. concrete, 13,838 cu.yd. roadway excav., 7,342 cu. yd. gravel, 4,718 lb. reinforcing, $36,918; 10.57 mi. State Highway 2, Atascosa Co. line to 1.9 mi. south of Devine, 3,185 cu.yd. borrow, 50,441 cu.yd. roadway excav., 1,411.02 cu.yd. concrete 26,468 cu.yd. gravel, 84,942 lb. reinforcing, $154,517. Walton & Arneson, Gunter Bldg., San Antonio, co. engrs.

Tex., Kerrville—Dec. 17, by L. Wallace, judge Kerr Co., grading, gravel surfacing and bridging 11.05 mi. State Highway 27, from Mountain Home to Ingram, 79.2 acres grubbing, 61,215 cu.yd. roadway, 8,373 cu.yd. loose and 18,204 cu.yd. solid rock excav., 1,029.4 cu.yd. concrete, 113.2 cu.yd. concrete pavement, 18,632 cu.yd. gravel, $119,587; 6.67 mi. Highway 27, from here to Ingram, 27,095 cu.yd. roadway and 992 cu.yd. solid rock excav., 827.3 cu.yd. concrete, 14,241 cu.yd. gravel, 63,859 lb. reinforcing, $46,686; 13.93 mi. State Highway 27 from Kimble Co. line to Mountain Home, 66.7 acres grubbing, 401.1 cu.yd. concrete, 354.04 cu.yd. concrete pavement, 2,932 cu.yd. gravel and 8,857 cu.yd. shale surfacing, 10,139 cu.yd. crushed rock, 37,905 lb. reinforcing, $102,398. W. E. Simpson, Co. 414 Natl. Bank of Commerce Bldg., San Antonio, engrs. Noted May 5.

Tex., Olton—Dec. 19, by R. C. Hopping, judge Lamb Co., grading and sand clay surfacing 34 mi. Highway 28, State Aid Project 249, 40,836 cu.yd. roadway, 1,065 cu.yd. structural excav., 700.64 cu.yd. concrete, 45.151 lb. reinforcing, etc. $70,000. C. L. Hasie Eng. Co., Littlefield, engrs. Noted Nov. 17.

Tex., Pecos — Dec. 22, by J. F. Ross, judge Reeves Co., grading and surfacing 26.8 mi. Highway 27 from Toyahvale to Pecos Co. line, Federal Aid Project 240. $103,174. A. J. Adcock, Grandfalls, co. engr. Noted Nov. 10.

Tex., Wharton—Dec. 14, by W. G. Davis, judge Wharton Co. surfacing with gravel, bituminous topping 5.9. mi. Highway 3 from San Bernard River west, 53,309 gal. asphaltic oil, 2,220 cu.yd. crushed stone at quarry, 17,252 cu.yd. gravel, $75,000; 6.4 mi. State Highway 3 from Colorado Co. line east, State Aid Project 50, 57,794 gal. asphaltic oil, 2,407 cu.yd. crushed rock, 18,880 cu.yd. gravel, $85,000. Nagle-Witt-Rollings Eng. Co., Wharton, co. engrs. Noted Dec. 1.

New Mexico—Dec. 20, State Hy. Dept., Santa Fe, grading, gravel surfacing and building culverts and bridges on 3.14 mi. State Aid Project, Madrid-Los Cerrillos, Santa Fe Co., 13,973 cu.yd. common and 702 cu.yd. rock excav., 4,407 cu.yd. Class 1 borrow, 2,763 cu.yd. gravel, 153.34 cu.yd. concrete; grading, shaping and crowning, building structures on 14.181 mi. Carlsbad-Lovington Rd., Federal Aid Project 70, Lea Co., 1,867 cu.yd. excav., 55,669 cu.yd. Class 1 borrow, 49.85 cu.yd. concrete; grading, paving and building structures on 6.698 mi. Albuquerque-Pajarito, Federal Aid Project 61-B, Bernalillo Co.; 8,162 cu.yd. excav., 8,375 cu.yd. Class 1 borrow, 3,903 station yd. overhaul, 180.9 cu.yd. concrete, 9,984 cu.yd. concrete pavement, 10 920 sq.ft. metal reinforcement (pavement); 6.809 mi. Berino-Anthony, Federal Aid Project 66, Donaana Co., 7,381 cu.yd. excav., 6,998 cu.yd. Class 1 borrow, 4,797 station yd. overhaul, 126 cu.yd. concrete, 10,654 cu.yd. concrete pavement 1:23 mix, 46,096 sq.ft. metal reinforcement. L. A. Gillett, state highway engr.

California—Dec. 19, by State Hy Comn., Sacramento, grading 7.3 mi. highway between Sloat Blvd. and Sneath Rd., San Francisco and San Mateo Counties. A. B. Fletcher, state highway engr.

Cal., Mill Valley—Dec. 13, by Bd. Trustees, grading, bridging and paving portions of Cascade Drive, Josephine St. and others, 24,744 cu.yd. grading, 443,140 sq.ft. hydraulic concrete paving, 1,792 lin.ft. 8-30 in. corrugated pipe, one 60 ft. viaduct, two 10 ft. and two 12 ft. spans, etc. J. C. Oglesby, Cheeda Blk., San Rafael, engr.

BIDS RECEIVED

Vermont—State Highway Dept., Montpelier, 2.3 mi. bituminous macadam road in Highgate Co., from Hoyt Constr. Co., Holyoke, Mass., $70,445, Arborio Rd. Constr. Co., Hartford, Conn., $71,627, Guild & Douglas, Springfield, $77,468; 7 mi. gravel road, Marshfield and Cabot Counties, from Streeter & Sons, Glenwood Park, Worcester, Mass., $157,108, W. E. Dix, Springfield, $170,161, R. Hopkins, 824 2nd Ave., Troy, N. Y., $172,793; 4 mi. gravel road, Cambridge Co., P. Ricci, Rutland, $73,276; Arborio Rd. Constr. Co., Hartford, Conn., $78,951, G. L. Gregoire, Barre, $81.430. Noted Nov. 17.

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Dec. 1, repaving Nevins St., from Leonard Paving Co., 233 Bway., New York, $7,949, F. J. Gallagher, 490 Park Pl., $8,003; Ridge Blvd., from Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $31,346, Borough Asphalt Co., 1301 Metropolitan Ave., $34,765, Uvalde Asphalt Co., 1 Bway., New York, $39,432; Tillary St., from R. J. Donovan, 618 Union St., $11,420, C. Gallagher, 745 Dean St., $11,964, J. D. Norton, 20 Sterling Pl., $12,044. Noted Nov. 24.

North Carolina—State Hy. Dept., Raleigh, improving (1) 10.59 mi. State Project 639, Iredell Co., (a) clearing, grading and concrete or asphaltic paving, (b) rein.-con. bridges and culverts, (2) 8.84 mi. State Project 653, Mecklenburg Co., (a) grading and concrete or asphaltic paving, (b) rein.-con. bridges and culverts, (3) 9.87 mi. State Project 456, Orange Co., (a) clearing and grading, (b) rein.-con. bridges and culverts; grading and concrete or asphaltic paving, (4) 1.57 mi. State Project 655, Mecklenburg Co., (5) 10.85 mi. State Project 622, Catawaba Co.; clearing grading and concrete or asphaltic paving 8.5 mi. State Project 632, Gaston Co., from R. M. Hudson Co., Salisbury, (1a) $332,545, (2a) $282,260; Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., (1b) $19,681, (2b) $10,725; Porter & Boyd, Realty Bldg., Charlotte, (1a) $340,744, (6) $269,590; J. E. Lane & Co., Altavista, Va., (1b) $20,392; Union Paving Co., 30th and Locusts Sts., Phila., Pa., (1a) $345,697, (2a) $269,941, (5) $322,241, (6) $264,427; E. R. Griffith Constr. Co., Salisbury, Md., (1b) $20,759, (2b) $11,427, (4) $58,975; Simmons Constr. Co., Charlotte, (2a) $273,927; Reid & Lowe, Piedmont Bldg., Charlotte, (2b) $11,310; Crawford & Crawford, Mebane, (3b) $17,443; N. L. Teer, Durham, (3b) $16,611; W. W. Tuck & Son, Virgilina, Va., (3a) $17,527; W. M. Shook, Liberty, (3a) $17,731; Hazell-Connerat-Quist Co., Savannah, Ga., (3b) $16,977; Speed Parker, Inc., Norton Bldg., Louisville, Ky., (4) $51 459 W. A. Ebert, Latta Arcade, Charlotte, (4) $53,855; Atlantic Bitulithic Co., Virginia Ry. & Power Bldg., Richmond, Va., (5) $334,994; Hyde & Baxter, 711-13th St., N. W., Wash., D. C., (5) $336,140; Davis Wilcox Constr. Co., Spencerville, O., (6) $263,712. Noted Nov. 17.

Alabama—State Hy. Comn., Montgomery, grading and surfacing with local chert, 17.758 mi. road between Ft. Payne and Collinville, from J. P. Dicus, Burgaw, N. C., $159,326; Finne Co. & Wallace Bros., Tuscaloosa, $166,098; J. H. Hopkins & Co., Bessemer, $167,197. Noted Nov. 10.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving 5.69 mi. Route 7, Sect. 3, Henry Co., from J. J. Dunnegan, Shenandoah, Ia., $147,000, L. S. Kuhn, Bloomington, $149,639; grading 0.3 mi. Federal Aid 8, Sect. 3, Macoupin Co., from Alzina Constr. Co., Springfield, $9,213, W. F. Smith & Co., Rensselaer, Ind., $10,620, R. Culbine, Gillespie, $10,873.

Minnesota—State Hy. Comn., St. Paul, (1) State Project 35-21, Federal Aid Project 245, Aitkin Co., (2) State Project 23-21, Federal Aid Project 234, Benton Co. (3) State Project 23-22, Federal Aid Project 243, Benton and Mille Lacs Co., from Winston Bros., 801 Globe Bldg., Minneapolis, (1) $54,706; Cox Constr. Co., Gilfillan

Streets and **Roads** (Continued)

Block, St. Paul, (1) $57,313; D. W. Moore, 894 Edmund St., St. Paul, (1) $58,540; Wilkins & Pettijohn, Park Rapids, (2) $33,910 (3) $37,927; Thomas & Thursdale, c/o State Hy. Dept., St. Paul, (2) $36,298; W. H. Duffy, Fairmount, (2) $36,403 (3) $40,291; Poag & Rundel, c/o State Hy. Dept., St. Paul, (3) $40,622. Noted Nov. 24.

Minnesota—State Hy. Dept., St. Paul, gravel surfacing (1) State Project 28-26, Federal Aid Project 240, Big Stone Co., (2) State Projects 7-21 and 60-21, Federal Aid Project 216, Blue Earth Co., (3) State Project 18-21, Federal Aid Project 217, Sherburne Co., (4) State Project 10-23, Federal Aid Project 210, Meeker Co., (5) State Project 6-26, Federal Aid Project 161-A, Wilkin Co., (6) State Project 9-22, Federal Aid Project 228, Martin Co., (7) State Project 8-24, Federal Aid Project 237, Itasca Co., (8) State Project 8-25, Federal Aid Project 57, Beltrami Co., (9) State Project 10-22, Federal Aid Project 211, Swift, Pope and Stevens Counties, (10) State Project 2122, Federal Aid Project 119-A, Le Sueur Co., from C. F. Sculley Equipment Co., 300 Dakota Bldg., St. Paul, and Connolly Contg. Co., 427 Rice St., St. Paul, (1) $64,616, (2) $17,848 and $9,821, (6) $25,459. Morton & Bjerkness, 365 University Ave., St. Paul, (1) $66,411. C. J. Wheelock, Pierre, S. D., (1) $66,919, (2) $22,483 and $10,867, (5) $16,535, (8) $19,827. Tobin & Maloney, Madison, S. D., (2) $22,299 and $11,086. G. Kinney, Foley, (3) Div. C, $9,938, D, $13,553. F. Fredeen, Taylors Falls, (3) Div. C, $10,935, Div. D, $13,132. L. E. Brophy, 400 Northwestern Bank Bldg., Minneapolis (3) Div. C, $11,173, (8) $19,602, (10) $15,211, Campbell Equipment Co., 230 Oak Grove St., Minneapolis, (3) Div. D, $11,012, (5) $16,638, (7) $30,268, (8) $16,840, (9) $20,850. C. Weaver, Anoka, (4) $17,867. Scott & Co., 3015 Nicollet Ave., Minneapolis, (4) $18,966. Felin & Smith, St. Paul, (4) $20,526, Miller Constr. Co., Grain Exch. Bldg., Sioux City, Ia., (5) $16,151. J. H. Huff, St. Paul, c/o State Hy. Dept., (6) $25,016. G. H. Gatzemeyer, 5120 Upton Ave., S., Minneapolis, (6) $27,490. Dobbleman & Rasmussen, 4232 Colfax Ave., S., Minneapolis, (9) $20,066, (10) $14,430. Motor Hauling Equipment Co., 310 1st Ave., N. E., Minneapolis, (9) $22,457. S. J. Peterson, 300 West Lake St., Minneapolis, (10) $13,954. Floan-Sundstrum Co., Hibbing, (7) Div. B, $7,564, (A and B combined) $31,562. Northern Road & Constr. Co., 2214 Sheridan Ave., N., Minneapolis, (7) Div. A, $19,897. Noted Nov. 17.

Minnesota—State Hy. Comn., St. Paul, opened bids Nov. 30, gravel surfacing (1) State Project 28-28, Federal Aid Project 205, Todd Co., (2) State Project 28-21, Federal Aid Project 209, Stearns Co. (3) State Project 9-23, Sect. B, Federal Aid Project 224, Jackson Co. (4) State Project 2-25, Federal Aid Project 242, Cass Co. (5) State Project 30-32, Federal Aid Project 117, Mahnomen Co. (6) State Project 3-24, Federal Aid Project 218, Wabasha Co. (7) State Project 68-21, Federal Aid Project 214, Lyon Co.; grading and paving, concrete (8) State Project 1-21, Federal Aid Project 212, Dakota Co., from S. C. Mitchell, Rochester (1) $14,161 (6) $17,612 (7) $28,849. Dobbleman & Rasmussen, 4232 Colfax Ave. S., Minneapolis, (1) $14,853 (2) $2,795 (4) $9,105 (5) $41,067 (7) $15,210. Campbell Equipment Co., 230 Oak Grove St., Minneapolis, (1) $15,523. C. Jones, Sioux Falls, S. D., (3) $14,751 (7) $30,252. G. H. Gatzmeyer, 5120 Upton Ave. S., Minneapolis, (3) $14,086 (6) $16,591. G. H. Atkinson Paving Co., Watertown, S. D., (3) $15,132 (7) $30,966. W. Kinney, Foley, (4) $8,549. Lange Constr. Co., 738 Western Ave., N., St. Paul, (4) $8,720 (7) $15,264. Evanson & Utterberg, 552 Builders Exch. Bldg., Minneapolis, (5) $42,878. Tobin & Maloney, Madison, S. D., (5) $42,146. C. F. Sculley Equipment Co., 300 Dakota Bldg., and Connolly Contg. Co., 427 Rice St., St. Paul, (7) $16,892, Low-Butler Bros. Building Co., Hamm Bldg., St. Paul, (8) grading $0.40 per cubic yard., concrete pavement, gravel base, $2.26 per square yard, stone mesh $2.29, gravel mesh $2.31, total $606,000. Noted Nov. 17.

Missouri—State Hy. Dept., at div. office Perryville, opened bids Nov. 10, 1,403 mi. road Project 20,114, Perry Co., (1) 33,145 cu.yd. earth excav., (2) 6,671 cu.yd. rock excav., etc., from Allhands & Davis, Joplin, (1) $0.265, (2) $1.60, total, $35,621; Service Constr. Co., Poplar Bluff, (1) $0.38, (2) $1.95, $35,774; Kiefner, Morton, Geile and others, Perryville, (1) $0.329, (2) $1.50, $36,448.

Wash., Seattle—Opened bids Nov. 26, grading and paving Elliott Ave., et al, (a) clay, (b) concrete pipe, from Olympic Constr. Co., 1326 Northlake Ave., (a) $324,604, (b) $324,604; Fiorito Bros., New York Block, (a) $327,469, (b) $326,304; John & Bressi Co., New York Block, (a) $325,166, (b) $325,913.

Cal., Los Angeles—Bd. Supervs. Los Angeles Co., paving College Ave. from Vernon and Downey Rd. to Gallatin, 21,965 sq.yd. asphalt or willite, 2,377 cu.yd. excav., 1,860 ton granite base, from G. R. Curtis, 2440 East 26th St., $47,362; Fairchild, Gilmore, Wilton Co., Pacific Electric Bldg., $52,207; Los Angeles Paving Co., 2900 Santa Fe Ave., $57,614. Noted Nov. 10.

CONTRACTS AWARDED

Massachusetts—State Hy. Dept., Boston, gravel surfacing 21,100 ft. state highway, 18 ft., in Plainfield and Cummington, to G. T. Seabury, Inc., 44 Washington St., Providence, R. I., $77,805. Noted Dec. 1.

N. Y., Brooklyn—E. Riegelmann, boro pres. Boro Hall, to Borough Asphalt Co., 1301 Metropolitan Ave., paving Elmore Pl., $9,676, Glenmore Ave., $2,383, roadway at intersection of New York Ave. and Montgomery St., $1,174, roadway of Williams Ave., $8,095, roadway space between outer rails and curb on 8th Ave., $5,117, roadway of 74th St., $7,550, roadway of 80th St., $6,892; to Cranford Co., 52 9th St., roadway of Senator St., $8,225; to Sicilian Asphalt Paving Co., 41 Park Row, New York, grading, curbing and laying sidewalks on Clarkson Ave., etc., $19,794. Noted Nov. 24.

Pa., Pittsburgh — Grading, paving and curbing Ravenna St., to Booth & Flinn, Ltd., Forbes St., $27,005.

Fla., Okeechobee—Paving portions North Park, South Park, Osceola, Hicpochee, Miamee, Kissimmee, Hancock, Petit, 2nd, 7th, 9th, 8th and 6th Sts., Parrott, Okeechobee, 10th and 5th Aves., 3 in. penetration macadam, asphalt or oil binder, probably 8 in. rock base, to Maule Paving Co., Ojus, $90,000. Noted Nov. 17.

Alabama—State Hy. Dept., Montgomery, grading and surfacing 4.664 mi. road from Mobile to Chicasaw via St. Stephens Rd. and Pritchard, Mobile Co., to Hancock Bros., 162 Conti St., Mobile, $148,327 Noted Nov. 10.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving (1) 4.55 mi. Route 2, Sect. 24, Fayette Co., (2) 4.82 mi. Route 2, Sect. 25, Fayette-Marion Co., (3) 4.4 mi. Route 2, Sect. 26, Marion Co., (4) 4.52 mi. Route 2, Sect. 27, Marion Co., (5) 4.34 mi. Route 2, Sect. 28, Marion Co., (6) 3.47 mi. Route 2, Sect. 29, Marion Co., (7) 3.98 mi. Route 2, Sect. 30, Marion-Washington Co., (8) 4.53 mi. Route 2, Sect. 31, Washington Co., (9) 3.29 mi. Route 2, Sect. 32, Washington Co., (10) 2.76 mi. Route 2, Sect. 33, Washington Co., (11) 6.86 mi. Route 3, Sect. 68, Monroe Co., (12) 4.64 mi. Route 5, Sect. 19, Stephenson Co., (13) 2.53 mi. Route 5, Sect. 20, Stephenson Co., (14) 4.64 mi. Route 5, Sect. 21, Stephenson Co., (15) 5.45 mi. Route 5, Sect. 22, Stephenson Co., (16) 5 mi. Route 5, Sect. 23, Stephenson-Jo Daviess Co., (17) 5.2 mi. Route 7, Sect. 6, Henry Co., (18) 1.35 mi. Route 7, Sect. 8-C, Bureau Co., (19) 4.45 mi. Route 7, Sect. 9, Bureau Co., (20) 5.57 mi. Route 7, Sect. 10, Bureau Co., (21) 1.36 mi. Route 7, Sect. 11, Bureau Co., (22) 6.85 mi. Route 31, Sect. 1, Adams Co., (23) 7.54 mi. Route 31, Sect. 2, Adams Co., grading (24) 5.06 mi. Route 3, Sect. 38-A, McDonough Co., (25) 0.24 mi. Route 4, Sect. 4-A, Will Co., (26) 5.57 mi. Route 37, Sect. 1-A, Jefferson Co., to Mautz & Oren, Effingham (1) $92,840, (2) $95,417, (3) $86,460, (4) $87,817. J. W. Etchison, Casey, (5) $89,773, (6) $72,354. E. Berns & Co., Indianapolis, Ind., (7) $88,746, (8) $101,812, (9) $69,757, (10) $58,755. Powell & Gaven, Collinsville, (11) 143,414. Federal Paving Co., 133 West Washington St., Chicago, (12) $97,169, (13) $57,617, (14) $96,820, (15) $112,685, (16) $115,709. Trompeter & Son, Peru, (17) $105,767. Webber Co., Ionia, Mich., (18) $29,720, (19) $101,666, (20) $117,670, (21) $30,316. F. Rees, Quincy, (22) $128,977. Cameron, Joyce & Co., Keokuk, Ia., (23) $169,953, (24) $17,591. Powers & Thompson Constr. Co., Joliet, (25) $4,446. Jobst & Gates, 115 South Jefferson St., Peoria, (26) $42,694. Noted Nov. 24.

Minn., Warren—Marshall Co. rejected bids opened Nov. 8, gravel surfacing 4 mi. State Rd. 3, Job 2201, 3 mi. State Rd. 4, Job 2203, 11 mi. State Rd. 4, Job 2205 and 7 mi. State Rd. 5, Job 2209. $25,000. Work will be done by day labor.

Kan., Cherryvale—Paving 15 blocks, to J. O'Leary, Cherryvale, $50,678.

Missouri—State Hy. Dept., Jefferson City, 8.37 mi. road from Canton southward and westward, Federal Aid Project 38, Lewis Co., 36,638 cu.yd. earth and 46,360 cu.yd. rock excav., 18,060 cu.yd. borrow, 75,024 sq.yd. broken stone base course, 4,467 sq.yd. specification B gravel pavement, etc., also 7.94 mi. road north and south through La Grange Special Rd. Dist., Federal Aid Project 39, Lewis Co., 30,882 cu.yd. earth excav., 5,692 cu.yd. borrow, 74,691 sq.yd. specification B gravel pavement, etc., to W. A. Ross, 501 East Armour Blvd., Kansas City, $121,197 and $87,335 respectively.

Tex., Breckenridge—Stephens Co. grading, surfacing, topping and bridging 10.31 mi. State Highway 1, Albany Rd., 18 and 22 ft., and 19.78 mi. State Highway 1, Caddo Rd., 18, 20 and 46 ft., to Womack Constr. Co., McKinney, $220,337 and $301,564 respectively, costs do not include cost of crushed stone furnished by county. Noted Dec. 1.

Okla., Okmulgee—State Hy. Dept., Oklahoma City, paving 11.8 mi. road south from here to Henryetta, asphalt on concrete, for Okmulgee Co., to M. R. Ammerman, 437 South Market St., Wichita, Kan., $411,000.

Okla., Pauls Valley—Paving 12,000 sq.yd. in Dist. 12, vitr. brick, to Standard Paving Co., 321 North Boston St., Tulsa, $72,700. Noted Sept. 29.

Utah—State Hy. Comn., Salt Lake City, grading 12.56 mi. road from Marysville to Junction Rd., Federal Aid Project 19 A, 24 ft., and gravel surfacing 4 mi., 18 ft., to A. C. Young, Richfield, $64,000. Noted Nov. 17.

California—State Hy. Dept., at div. office Los Angeles, grading 12 mi. highway between Flynn Creek and mouth of Navarro River, Mendocino Co., to J. P. Holland, 540 Brannan St., San Francisco, $170,239. Noted Dec. 1.

California—State Hy. Comn., Sacramento, paving 8.4 mi. highway between 2¼ mi. east of Naples and Canada de las Llagas and between Los Chizueros and Gaviota Creeks, cement concrete shoulders and asphaltic concrete surface, Santa Barbara Co., to Southwest Paving Co., Washington Bldg., Los Angeles, $92,884; 2.3 mi. between Fresno and point 2.3 mi. northwesterly, asphaltic concrete, Fresno Co., to Federal Constr. Co., Call Bldg., San Francisco. Noted Nov. 17.

Cal., Inglewood—Paving Market and Commercial Sts., and portions of Regent and Quene Sts., 259,384 sq.ft. concrete, to G. H. Oswald, 366 East 58th St., Los Angeles, $66,143.

Industrial Works

PROPOSED WORK

N. Y., New York—Two Forty Two and Two Fifty Two West 36th St. Corp., c/o Schwartz & Gross, archts. and engrs., 347 5th Ave., soon takes bids 13 story, 98 x 128 ft., light manufacturing plant, brick and steel, plain foundation, 215-252 West 36th St. $950,000.

Pa., Lansdale—Boro. plans addition to power plant. $250,000. A. Durk, supt.

Pa., Pittsburgh—H. J. Heinz Co. soon takes bids 6 story, 92 x 150 ft. storage plant, Progress St. Excavation and piling contract to Raymond Concrete Pile Co., Union Bank Bldg. Noted Nov. 17.

Ky., Louisville—United Casket Co., 3022 West Chestnut St., had plans prepared by M. Sartoro, archt. and engr., Cleveland, O., 1 story, 100 x 450 ft. dry kiln factory and 40 x 40 ft. boiler house, rein.-con., concrete pile foundation, 12th and Magazine Sts. $300,000.

O., Cleveland—Whitmer-Jackson Sash & Door Co., 1996 West 3rd St., had plans prepared by H. M. Morse & Co., archts., Plymouth Bldg., 1 story, 70 x 128 ft., brick and steel factory addition, plain foundation. $40,000.

Ind., Indianapolis—Alena Steam Products Co., 208 Hume-Mansur Bldg., having plans prepared by F. Hamilton, engr., 208 Hume Mansur Bldg., 1 story, 60 x 260 ft., brick and steel factory, Denny Ave. $45,000.

Ind., Indianapolis—F. R. Chandler, 3817 North Pennsylvania St., having plans prepared by Vonnegut, Bohn & Mueller, archts., 610 Ind. Trust Bldg., 5 story, 60 x 202 ft., brick, steel, concrete and terra cotta garage, 30-32 West Vermont St. $250,000.

Ind., Indianapolis—C. E. Pauley, 112 East Maryland St., plans 5 story, 95 x 135 ft., concrete and brick, North New Jersey St. $225,000. Architect not selected.

Ill., Benton—Benton Ice & Bottling Co. plans ice and bottling plant, brick, North Main St. $100,000. Stegemier & Kennerly, Title Guarantee Bldg., St. Louis, Mo., engrs.

Ill., Chicago—Marshall & Fox, archts., 712 North Michigan Ave., soon take bids 7 story, 100 x 125 ft., publishing plant,

Industrial Works (Continued)

rein.-con., brick and steel, Ontario and St. Clair Sts., for H. W. Windsor, c/o architect. $400,000.

Ill., Chicago—Morand Cushion Wheel Co., 818 South May St., soon takes bids 2 story factory, fireproof construction, Western and 77th Sts. $500,000. J. L. Mrazek, c/o owner, archt.

Ill., Chicago—Newhouse & Bernham, archts., 4630 Prairie Ave., soon take bids 1 story, 100 x 160 ft. garage, rein.-con., brick and steel, Bway. and Fair Oaks St., for L. H. Wolf and E. Bain, c/o architects. $80,000.

Ill., East St. Louis—Natl. Malleable Castings Co. having plans prepared 1 story, 128 x 200 ft. foundry and 111 x 197 ft. annealing rooms, brick and steel. $150,000. Private plans.

Wis., Cudahy—Cudahy Bros. Co. soon take bids 1 story, 82 x 190 ft. box factory, rein.-con. and brick, plain foundation.

Minn., Duluth—F. J. Dacey, pres. Gogebic Boiler Wks., Lake Ave. S., J. A. Newcomb, Spalding Hotel, and associates are incorporating Duluth Central Heating Co., and plan to erect central heating plant, incl. 500,000 ft. steam pipe. Plant will extend from Aerial Bridge on South Lake Ave. to 4th St. betwen 7th Ave. W. and 3rd Ave. E. $1,500,000. J. J. Sawyer, Jr., 512 Sellwood Bldg., engr.

Mo., Jackson—International Shoe Co., 15th and Washington Sts., St. Louis, plans 3 story, rein.-con., brick and steel factory, here. $100,000. A. Hume, c/o owner, mech. engr.

Wyo., Casper—Wyoming Refining Co., 217 Midwest Bldg., purchased 340 acre site, 3 mi. east of here, and plans refinery, first unit with one battery of stills, 7,000 bbl. capacity, to be gradually enlarged to 20,000 bbl. capacity. Project includes 40 mi. pipe line from Salt Creek oil fields. Ultimate cost $10,000,000. W. A. Blackmore, Casper, pres.

Cal., Long Beach—Kimball Motor Truck Co., 1700 East 9th St., having plans prepared 3 factory buildings, on 4 acre site, West Aneheon Blvd. $350,000. Private plans.

Cal., San Leandro—Alameda Co. (Oakland), takes bids about Jan. 1, 1 story laundry and 1 story power house, incl. ice plant, refrigerating plant, incinerator, shops, etc., both tile and frame, on County Infirmary Grounds, here. H. H. Meyers, Kohl Bldg., San Francisco, archt.

Ont., Brockville—I. M. Baxter & Co., Ltd., 102 St. Antoine St., Montreal, Que., plans factory, here. $40,000.

BIDS DESIRED

R. I., Providence—Dec. 12, by Lackwood-Greene & Co., archts. and engrs., 60 Federal St., Boston, 1 story, 200 x 250 ft. machine shop and 2 story, 45 x 99 ft. office, concrete and brick, for Textile Finishing Machine Co., 171 Westminster Ave.

N. Y., Brockport—Dec. 20, by C. L. Cadle, supt. Pub. Wks., Albany, frame freighthouse, also placing and compacting gravel surfacing on terminal site, here, Terminal Contr. 232.

N. Y., Marcy—Dec. 21, by State Hospital Comn., Albany, cold storage building and kitchen, for acute patients at Marcy State Hospital, here.

Pa., Phila—Gurrtz & Co., 1033 Chestnut St., receiving bids 1 story, 60 x 177 ft. brick and steel garage and service station, plain foundation, Broad and Carlisle Sts. $50,000. I. S. Fuler, 1537 Chestnut St., archt.

Pa., Phila.—Dec. 20, Velie Sales Co., 29 West Harvey St., Germantown, 1 story, 50 x 106 ft. brick and steel garage and service station, plain foundation, Price St. and Chellen Ave. $60,000.

Pa., Pittsburgh—Frick & Lindsay Co., Sandusky and Robinson Sts., 7 story, 50 x 50 ft. warehouse addition, Sandusky St. Work will be done by separate contract. Steel contract (290 ton) to McClintic-Marshall Co., Oliver Bldg.

Pa., Templeton—Templeton Limestone Co., Kittaning, 30 x 60 ft. crusher building and 25 x 25 ft. power house, near here. $50,000. Work will be done by separate contract. J. Breslove, Oliver Bldg., Pittsburgh, engr.

Pa., Undercliff (Pittsburgh P. O.)—Seyler Mfg. Co., 1 story, 40 x 60 x 140 x 180 ft. brick and steel plant. Work will be done by separate contracts. Steel contract to Memphis Steel Constr. Co., Magee Bldg., Pittsburgh; rein.-con., to Bower & Hale, 312 Fitzsimmons Bldg., Pittsburgh.

Ind., Michigan City—Dec. 13, by F. D. Chase, Inc., engr. 545 North Michigan Ave., Chicago, 1 story, brick, steel and concrete, power plant and foundry, 4th and Wabash Sts., for Haskell & Barker Car Co., Michigan City.

SUBWAY—NEW YORK, N. Y.

Bids were received by Transit Comn., 49 Lafayette St., Nov. 9 (lowest 3), for extension of Queensboro Subway, Routes Numbers 35 and 67, from (A) Powers-Kennedy Contg. Corp., 149 Bway. (awarded contract); (B) Keystone State Constr. Co. and Paul J. Brown, 17 West 42nd St.; (C) F. L. Cranford, Inc., 149 Remsen St., Brooklyn. The unit bids were as follows:

Item		A	B	C
1	36,500 cu.yd. earth excavation above mean high water	$7.00	$8.00	$11.75
2A	1,900 cu.yd. earth excavation above and below mean high water for sewers, etc	7.10	9.00	7.60
3	81,300 cu.yd. rock excavation	10.25	10.00	11.75
3A	340 cu.yd. rock excavation for sewers, etc	12.50	12.00	13.65
4ACa	Underpinning building N.W. cor. 5th Ave. and 42nd St. (lump sum)	4,200.00	5,000.00	2,000.00
b	Underpinning building, N. Y. Public Library (lump sum)	20,000.00	50,000.00	27,000.00
c	Underpinning building, Nos. 107 to 117 W. 41st St. (lump sum)	3,625.00	14,000.00	4,800.00
d	Underpinning building, Comedy Theatre (lump sum)	4,400.00	5,000.00	4,000.00
e	Underpinning building, Hotel Calvert (lump sum)	5,000.00	5,000.00	4,400.00
f	Underpinning building, Hotel Continental (lump sum)	4,000.00	4,000.00	7,000.00
g	Underpinning building, Broadway Theatre (lump sum)	10,500.00	12,500.00	8,000.00
h	Underpinning building, Commercial Trust Co. (lump sum)	10,000.00	10,000.00	7,200.00
i	Underpinning building N.W. cor. 7th Ave. and 41st St. (lump sum)	4,500.00	5,000.00	2,000.00
j	Underpinning building, 201 W. 41st. St. (lump sum)	1,500.00	1,200.00	1,000.00
k	Underpinning building, 203 W. 41st St. (lump sum)	2,000.00	1,200.00	1,000.00
l	Underpinning building, 205 W. 41st St. (lump sum)	2,500.00	1,200.00	1,000.00
m	Underpinning building, New Amsterdam Theatre (lump sum)	10,000	18,750.00	6,000.00
n	Underpinning building, 200 to 204 W. 41st St. (lump sum)	5,000.00	10,000.00	4,000.00
o	Underpinning building, 206 W. 41st St. (lump sum)	2,500.00	1,500.00	1,000.00
p	Underpinning building, theatre between 206 and 220 W. 41st St. (lump sum)	8,000.00	10,000.00	4,400.00
q	Underpinning building, 220 to 224 W. 41st St. (lump sum)	2,000.00	1,850.00	3,100.00
4AD	Protecting Sims' Statue (lump sum)	3,000.00	3,000.00	3,500.00
4AE	Moving and restoring Men's Comfort Station (lump sum)	30,000.00	21,000.00	25,000.00
4AF	Removing and reconstructing approaches to N. Y. Public Library (lump sum)	60,000.00	50,000.00	65,000.00
4AG	Protecting Catskill Aqueduct Shaft No. 17 (lump sum)	2,000.00	13,000.00	1,000.00
4AH	Protecting Madison Ave. tunnel sewer (lump sum)	2,000.00	5,000.00	2,500.00
5A	71,400 cu.yd. tunnel excavation	13.00	11.80	16.00
6	38,000 cu.yd. concrete masonry	19.00	17.50	15.52
6S	140,000 sq.ft. rubbing to smooth finish the surface of concrete	.15	.10	.10
7	4,000 cu.yd. protective concrete	15.55	19.00	15.52
8	100 cu.yd. rubble stone masonry	9.45	12.00	15.52
8A	100 cu.yd. dry rubble masonry	9.00	10.00	10.00
9	100 cu.yd. brick masonry	39.00	35.00	30.00
10	50 cu.yd. hollow terra cotta brick or tile masonry	36.00	25.00	25.00
10A	100 lin.ft. 4½ in.x13 in. terra cotta flue	1.50	2.00	1.00
11	5,000 bbl. grout of Portland cement	6.00	7.00	6.00
11A	100 sq.yd. resurfacing old concrete masonry	2.00	5.00	12.00
13A	130 M.ft.b.m. tunnel timbering	200.00	100.00	100.00
14	50 cu.yd. broken stone or gravel	5.00	9.00	4.00
15a	4,300 sq.yd. waterproofing, 1-ply	.30	1.00	1.00
b	100 sq.yd. waterproofing, 2-ply	.50	1.80	1.40
c	18,000 sq.yd. waterproofing, 3-ply	.95	2.50	1.75
d	100 sq.yd. waterproofing, 4-ply	1.25	3.00	2.00
e	100 sq.yd. waterproofing, 5-ply	1.50	4.00	2.50
f	1,800 sq.yd. waterproofing, 6-ply	2.25	4.00	2.75
i	100 sq.yd. waterproofing, dry ply	.20	.10	.85
16	620 cu.yd. brick in asphalt mastic	50.00	50.00	45.00
17Ce	60 lin.ft. galvanized wrought-steel pipe, "extra heavy," 8 in	3.00	5.00	10.00
17Sa	1,600 lin.ft. cast-iron pipe, 3 in	.25	1.30	2.00
c	900 lin.ft. cast-iron pipe, 6 in	1.25	1.60	3.00
d	5,600 lin.ft. cast-iron pipe, 8 in	1.50	2.50	4.25
e	70 lin.ft. cast-iron pipe, 10 in	3.00	3.00	5.50
18	76,300 duct ft. tunnel ducts	.18	.30	.29
18I	600 lin.ft. wrought-steel cable feed pipe, "extra heavy," 10-in	10.00	4.00	10.00
19	1,650 tons riveted steel	89.00	93.00	92.00
19B	1 ton resetting old steel, removed	2.00	50.00	80.00
19C	36 tons cutting and disposal of old cast-iron and steel	50.00	65.00	100.00
19NN	10 tons steel ladders and stairs	200.00	400.00	150.00
20	1,500 tons steel beams and shapes	84.00	85.00	92.00
20A	1,700 holes drilling holes in steel	1.00	.65	1.50
21	110 tons steel rods and bars	95.00	100.00	75.00
25	6 tons miscellaneous iron castings	150.00	125.00	150.00
25C	8 tons miscellaneous iron furnishings for sewer manholes	150.00	200.00	150.00
26	2,600 lb. special wire forms	.15	.20	.35
27B	3,700 lin.ft. hand-rail 1¼-in. seasoned oak or ash	.25	.70	.50
28	4,000 sq.ft. steel gratings for ventilation	2.50	3.50	3.50
29	370 sq.ft. vault lights	4.00	2.00	3.00
30a	2,800 sq.yd. street surface restored, within curb lines	2.50	3.00	2.50
e	2,500 sq.yd. repavement of roadways with asphalt	7.00	5.00	6.00
f	300 sq.yd. repavement of roadways with granite block	4.00	3.00	5.00
i	10 lin.ft. new bluestone curb	3.50	2.00	1.50
k	100 lin.ft. new 8-in. granite curb	6.00	3.00	4.50
31	300 sq.yd. park surface restored	4.00	2.00	4.00
32a	26,000 lin.ft. wrought-steel electric conduits, ¾-in	.20	.15	.45
b	330 lin.ft. wrought-steel electric conduits, 1½-in	.40	.40	.75
d	1,600 lin.ft. wrought-steel electric conduits, 1-in	.80	.35	.70
f	50 lin.ft. wrought-steel electric conduits, 3½-in	2.00	1.00	2.50
33	1,600 cast iron outlet boxes	4.00	1.50	1.50
33A	20 cast-iron pull boxes	5.00	20.00	8.00
34a	90 lin.ft. cast-iron pipe and fittings, 6 in	5.00	2.50	4.00
b	170 lin.ft. cast-iron pipe and fittings, 3 in	2.50	1.80	3.00
e	60 lin.ft. cast-iron pipe and fittings, 4 in	3.00	3.00	3.00
f	20 lin.ft. cast-iron pipe and fittings, 8 in	7.00	4.00	5.00
38	300 lin.ft. vitrified pipe sewer, 15 in	2.50	4.00	6.00
39	20 lin.ft. vitrified pipe sewer, 18 in	3.00	5.00	7.00
40	20 lin.ft. vitrified pipe sewer, 20 in	4.00	6.00	8.00
41	20 lin.ft. vitrified pipe sewer, 24 in	5.00	8.00	10.00
42	40 tons cast-iron sewer pipe (straight pipe)	60.00	100.00	140.00
43	15 tons cast-iron sewer pipe (special castings)	150.00	200.00	200.00
45	650 lin.ft. concrete sewer, 3 ft. 6 in. x 2 ft. 4 in	20.00	18.00	15.00
47	110 lin.ft. concrete sewer, 4 ft. x 2 ft. 8 in	25.00	20.00	18.00
75a	230 lin.ft. electric railroad (underground), single track	25.00	20.00	18.00
76II	Support of Broadway-4th Ave. R.T.R. (lump sum)	65,000.00	90,000.00	65,000.00
76JJ	Support of Manhattan-Bronx R.T.R. (lump sum)	50,000.00	70,000.00	75,000.00
76KK	Support of 7th Ave.-Lexington Ave. R.T.R. (lump sum)	150,000.00	150,000.00	12,500.00
76LL	Support of Queensboro Subway R.T.R. (lump sum)	8,000.00	1,000.00	5,000.00
79	340 lin.ft. water pipe, 6 in	1.50	1.90	1.00
82	320 lin.ft. water pipe, 12 in	2.50	2.10	2.00
84	120 lin.ft. water pipe, 20 in	5.00	6.50	3.00
87	80 lin.ft. water pipe. 36 in	10.00	3.00	5.00
88	100 lin.ft. water pipe, 48 in	15.00	20.00	8.00

Item		A	B	C
88A	5 service connections for water pipes	50.00	50.00	50.00
91	850 lin.ft. gas pipe, 6 in	1.50	1.80	1.00
92	120 lin.ft. gas pipe, 8 in	2.00	2.30	1.50
93	50 lin.ft. gas pipe, 10 in	2.50	4.00	1.75
94	80 lin.ft. gas pipe, 12 in	3.00	6.00	2.00
96	170 lin.ft. gas pipe, 20 in	5.00	15.50	3.00
99Ah	70 lin.ft. wrought steel, by-passing pipe, 4 in	1.00	7.00	3.00
a	1,460 lin.ft. wrought steel, by-passing pipe, 6 in	1.50	3.50	4.00
f	60 lin.ft. wrought-steel by-passing pipe, 20 in	15.00	40.00	12.00
99Bc	160 lin.ft. wrought-steel, by-passing pipe, on trestle, 20 in.	20.00	15.00	10.00
w	120 lin.ft. cable suspension to support by-passing pipe	2.50	14.00	10.00
99Cb	120 lin.ft. wrought-steel gas pipe, 6 in	2.00	2.00	5.00
99D	5 service connections for gas pipes	15.00	50.00	40.00
100	50 tons new cast-iron hub and spigot straight pipe.	100.00	70.00	75.00
100Ab	60 lin. ft. new standard weight wrought-steel gas pipe, 6 in.	2.50	1.50	2.50
101	20 tons new cast-iron and spigot pipe, special castings	100.00	150.00	150.00
101A	350 lb. new malleable-iron fittings	.50	.20	.30
127	19,000 duct ft. electric ducts and conduits	.55	.40	.50
127Ab	620 lin.ft. wrought-steel pipe electric ducts, 3 in	1.25	1.00	1.00
c	800 lin.ft. wrought-steel pipe electric ducts, 3½ in	2.00	1.20	1.25
d	25 lin.ft. wrought-steel pipe electric ducts, 4 in	3.00	1.50	1.50
i	100 lin.ft. wrought-steel pipe electric ducts, 3¼ in. Edison.	1.00	1.80	1.25
o	100 lin.ft. wrought-steel pipe electric ducts, 4 in. Edison.	2.00	2.00	1.50
127C	2 service connections for electric ducts	50.00	150.00	60.00
127L	2 service boxes on relocated duct lines	50.00	150.00	100.00
127M	2 junction boxes on relocated duct lines	1,000.00	700.00	200.00
127N	2 additional junction boxes, relocated duct lines	1,000.00	700.00	300.00
134	Engineer's office (lump sum)	2,000.00	4,000.00	8,000.00
	Extended totals	$3,867,138.00	$3,895,725.00	$4,171,403.00

Industrial Works (Continued)

Mich., Detroit—Dec. 15, by A. Kahn, archt., 1000 Marquette Bldg., 1 story, 50 x 170 ft., sales and service building, rein.-con., brick and steel, plain foundation, Canfield Ave., for Simons Sales Co., 436 West Willis Ave. $85,000.

Ill., Chicago—Newhouse & Bernham, archts., 4630 Prairie Ave., receiving bids 1 story, 100 x 180 ft. auto service station, rein.-con., brick and steel, Cottage Grove Ave. and 50th St., for Salvat & Newmaster, 740 East 51st St. $90,000.

Mo., St. Louis—Dec. 13, by C. Remabecker, 4263 Juniata Ave., 1 story, 120 x 160 ft., brick, steel and terra cotta garage, Chippewa and Nebraska Aves. $50,000. Private plans.

CONTRACTS AWARDED

Pa., Pittsburgh—Bronx Equipment Co., Concord Ave., Pittsburgh, and 143rd St., New York, 2 story, 50 x 60 x 81 x 120 ft., brick and steel plant, 32nd St. and Sassafras Alley, here, to W. T. Grange Constr. Co., 800 Keenan Bldg., $185,000.

O., Cleveland—H. Barth & Son, 8801 Clark Ave., 1 story, 84 x 110 ft., brick and steel garage addition, plain foundation, to C. C. Hahn, 3790 West 139th St., $40,000.

O., Cleveland—F. S. Plevits, 6613 Denison Ave., 2 story, 50 x 80 ft., brick and steel garage and commercial building, plain foundation, 6601 Denison Ave., to F. S. Wallace Co., 441 Engineers Bldg., $40,000.

O., Cleveland—Schwenger-Klein Co., 515 Woodland Ave., 1 story, 90 x 120 ft., brick, steel and concrete factory, plain foundation, 5501 Denison Ave., to Austin Co., 16112 Euclid Ave., East Cleveland, $60,000.

O., Orrville—Cyclone Drilling Co. 1 story, 170 x 300 ft. machine and forge shop, brick, steel and concrete, plain foundation, to Boldt Constr. Co., 5902 Euclid Ave., Cleveland, $150,000.

Ill., Oak Park—Drechsler Storage & Warehouse Co., 1137 Lake St., 5 story, 48 x 58 ft. storage and warehouse, rein.-con. and brick, to H. E. Moreland & Co., 3701 Belle Plaine Ave., Chicago, $150,000. Noted Sept. 22.

Wis., Milwaukee—Dort Motor Co., 242 4th St., 1 story, 118 x 120 ft., brick and concrete garage, plain foundation, Mason St., to J. L. Stanage, 3216 Vliet St., $40,000. Noted Oct. 13.

Wis., Milwaukee—A. W. Schmidt, 997 Greenfield Ave., 2 story bakery, brick and wood, plain foundation, 23rd Ave., to J. Bielefeld, 470 66th Ave., West Allis, $40,000.

Wis., Wausaukee—Parsons & Vertz, 1 and 2 story, 50 x 144 ft., brick, rein.-con. and steel garage, on Main St., to L. Polomis, Wausaukee, $45,000.

Ia., Sioux City—B. Pill, 707 West 7th St., 2 story, 50 x 150 ft., garage, brick and concrete, 2002 Summit Ave., by day labor, $40,000.

Kan., Parsons — Missouri, Kansas & Texas R.R., Ry. Exch. Bldg., St. Louis, Mo., 1 story machine shop, here, to T. H. Johnson, 107½ South Ohio St., Sedalia, Mo., $50,000.

Mo., St. Louis — A. B. Groves, archt., Stock Exch. Bldg., to J. Godfrey & Co., Wainwright Bldg., 7 story, 25 x 100 ft., brick and rein.-con. factory, 109 South 12th St., for J. Forshaw Stove & Heating Co., 111 North 12th St. $75,000. Noted Nov. 24.

Mo., St. Louis—Polar Wave Ice & Fuel Co., Grand and Olive Sts., 2 story, rein.-con., brick and steel plant, Gravois and Decolsey Sts., to Fruin & Colnon Constr. Co., Merchants Laclede Bldg. $500,000. Noted Nov. 24.

Cal., Los Angeles—C. C. Brown Candy Co., c/o T. B. Keim, Jr., archt., 719 Haas Bldg., 2 story, 60 x 165 ft., rein.-con., brick and stone factory, Flower St., near 7th St., to C. Bean, 701 Story Bldg., $40,262. Noted Aug. 25.

Cal., Oakland—Durant Motors Co., 2 story, auto factory with 4 wings, (exterior dimensions about 800 x 800 ft.), rein.-con., end of East 14th St., to P. J. Walker Constr. Co., Monadnock Bldg., San Francisco, $750,000; cost plus percentage basis.

Buildings

PROPOSED WORK

Mass., South Boston (Boston P. O.—Municipal—Bldg. Dept., 802 City Hall Annex, having plans prepared by Newhall & Blevins, archts., 9 Park St., Boston, brick, C St. and Bway. $200,000.

N. Y., Brooklyn—Bank—Roosevelt Savings Bank, Gates Ave., opens bids about Dec. 23, brick, steel and stone addition, plain foundation. $150,000. C. Otto, 15 Park Row, New York, archt. and engr. Noted Oct. 27.

N. Y., Flushing—Theatre—Arcola Realty Co., c/o H. G. Wiseman, archt. and engr., 25 West 43rd St., New York, soon takes bids altering brick and stone, Main St., here. $150,000.

N. Y., New York—Apartment—A. Cutler, c/o Gronenberg & Leuchtag, archts. and engrs., 303 5th Ave., soon takes bids 5 story, brick, steel and stone, plain foundation, Wadsworth Terrace. $150,000. Noted Nov. 10.

N. Y., New York—Bank and Office—New York Exch., 107-111 Hanover Sq., soon lets contract 23 story, 90 x 115 ft., brick, steel and stone, Hanover Sq. $2,250,000. D. Barber, 101 Park Ave., archt. and engr. Noted July 28.

N. Y., New York—Loft—A. E. Lefcourt & Co., 140 Madison Ave., plans 12 story, brick, steel and stone, plain foundation, 244-250 West 38th St. $500,000. Architect not selected.

Pa., Connellsville—Church—First Methodist Congregation having plans prepared by W. G. Eckles, archt., New Castle, and takes bids about Jan. 1, stone church. $175,000.

Pa., Phila. — Bath — Neubauer & Supowitz, archts., 929 Chestnut St., opens bids about Dec. 22, 3 story, 72 x 100 ft. rein.-con., brick, steel, terra cotta, tile and ornamental iron, plain foundation, 16th and Locust Sts. $200,000. Owner's name withheld.

Pa., Phila.—Memorial—Takes bids early in 1922 for 2½ story, stone and marble, 18th, 19th, Vine and Wood Sts. $1,500,000. P. B. Sinkler, City Hall, archt.

Pa., Phila.—Theatre—S. R. Blocksom, 667 North Broad St., having plans prepared by L. B. Rothchild, archt., 1225 Sansom St., and soon takes bids 1 story, 100 x 100 ft. rein.-con., brick and steel, plain foundation, Juniper and Locust Sts. $175,000.

Pa., Phila. — Theatre — A. Felts, 140 South 52nd St., opens bids early in 1922, 1 story 100 x 132 ft. theatre and 40 x 60 ft. arcade, rein.-con., brick and steel, plain foundation, Broad and Girard Aves. $250,000. Architect not selected.

D. C., Wash.—Hotel—F. H. Smith Co., 815 15th St., soon takes bids for hotel and roof garden. $3,000,000. J. H. De Sibour, Hibbs Bldg., archt. W. Wetmore, 16 West 47th St., New York, associated archt. Ritz Carlton Hotel Co., 40th St. and Madison Ave., New York, lessee.

W. Va., Logan—Schools—Bd. Educ. c/o S. Skoggs, had plans prepared by R. M. Bates, Jr., archt., 1st Natl. Bank Bldg., Huntington, 5 grade schools, brick. $150,000.

Ky., Louisville — Hospital — Kentucky Baptists, 824 Cecil Ave., having plans prepared and soon takes bids 3 or 5 story, 100 x 150 ft., rein.-con., brick and stone, Barrett Ave. M. B. Hunt, chn. $500,000. Joseph & Joseph, Francis Bldg., archts.

O., Columbus — Bank — See "Contracts Awarded."

O., Dayton—Dormitory and School—St. Joseph's Orphan Society plans 2 story, brick addition to present dormitory and 2 story, brick and concrete school, St. Paul Ave. $150,000. J. S. Heind, pres. Architect not selected.

O., Lakewood (Cleveland P. O.)—Clubhouse, etc.—Lakewood Country Club Co., c/o N. J. Fleming of Federal Reserve Bank, Williamson Bldg., Cleveland, plans 2 story, brick and steel clubhouse and golf course, Bradley Rd. $250,000. Architect not selected.

O., Martins Ferry—High School—Bd. Educ. having plans prepared by C. W. Bates, archt., 77 12th St., Wheeling, W. Va., 2 story high school. $450,000.

O., Shaker Heights—School—Bd. Educ. having plans prepared by C. W. Bates, archt., 77 12th St., Wheeling, W. Va., 2 story, 125 x 260 ft., brick, steel and concrete, plain foundation, Lohman Blvd. $250,000.

Ind., Ft. Wayne—Theatre and Hotel—Consolidated Realty & Theatres Corp., 401 Physicians Defense Bldg., having plans prepared by J. E. Pridmore & F. E. Fowler, archts., c/o owners, 6 story, 150 x 190 ft., brick, stone and concrete, Wayne St. $1,250,000.

Ind., Indianapolis—Apartment Hotel—E. G. Spink Co., Hume-Mansur Bldg., having plans prepared by W. K. Eldridge, archt., c/o owner, 6 story, 52 x 178 ft., stone, brick and rein.-con., North Pennsylvania St. $450,000.

Ind., Indianapolis—Church—Brightwood Methodist Episcopal Church having revised plans prepared by McGuire & Shook, archts., 320 Ind. Pythian Bldg., 1 story, 185 x 185 ft., brick and stone, 21st and Station Sts. $150,000. Noted June 30.

Ind., Indianapolis — Office — Mercantile Bldg. Co. having plans prepared by Vonnegut & Bohn, archt., 610 Ind. Trust Bldg., 77 x 90 ft., terra cotta, Illinois and Market Sts. $150,000.

Ind., Indianapolis—Theatre—W. T. Petty, Spink-Arms Hotel, having plans prepared by Vonnegut, Bohn & Mueller, Bldg., 2 story, 160 x 180 ft., brick and stone, Fall Creek Blvd. $350,000.

Ind., Indianapolis—Theatre—Stegemeier Bros., Occidental Bldg., having plans prepared by oVnnegut, Bohn & Mueller, archts., 610 Ind. Trust Bldg., 2 story, 44 x 120 ft. terra cotta, concrete and brick, North Illinois St. $175,000.

Ind., Lafayette—Recitation Hall—Purdue University having plans prepared by R. P. Daggett, archt., 959 Lemcke Annex, Indianapolis, 2 story, 95 x 100 ft., brick. $150,000.

Ind., Laporte—High School—Bd. School Comrs. plan 2 story, brick. $500,000. Architect not selected.

Ind., Muncie—Science Hall—State Normal School had plans prepared 2 story, 100 x 135 ft., brick. $150,000. C. Kibele, 335 Johnson Bldg., archt. Noted June 30.

Ind., New Haven—School—D. O. McComb, trustee, plans 2 story, brick. $175,000. Architect not selected.

Mich., Ann Arbor—Laboratory, etc.—University of Michigan, having preleminary plans prepared by Smith, Hinchman & Grylls, archts., 710 Washington Arcade, Detroit, 2 and 3 story, rein.-con., brick and steel laboratory and engineering shops, plain foundation, University Campus. $250,000. S. W. Smith, secy.

Ill., Chicago—Theatre—Whitney & Williams, archts., 110 South Michigan Ave., preparing plans and soon take bids 4 story, 120 x 250 ft., rein.-con, concrete, brick and steel, Howard St. and Marshfield Ave., for M. F. Schiavone & General Realty Co., c/o architects. $3,000,000.

Ill., Chicago—Theatre, Store and Office—Newhouse & Bernham, archts., 4630 Prairie Ave., preparing plans and soon take bids, 3 story, rein.-con., brick and steel, 1620 Howard St., for C. W. Ferguson, c/o architect. $200,000.

Wis., Manitowoc—High School—Bd. Educ. c/o F. Miller, pres., 601 North 6th St., hav-

Buildings (Continued)

ing plans prepared by Perkins, Fellows & Hamilton, Archts., 814 Towers St., Chicago, 2 story, 100 x 150 ft., brick, stone and rein.-con. $150,000.

Wis., Wausau—Mercantile—Ritter & Deutsch Co., 113 3rd St., plans 4 story, 62 x 120 ft., brick and concrete. $150,000.

Minn., Duluth—Hospital—F. A. Cokefair, chm., building com. St. Lukes Hospital Assn., 1st St. and 9th Ave., E., opens bids about April 1, 6 story, 140 x 400 ft. hospital and 75 x 140 ft., nurses home, rein.-con., brick, steel and stone, concrete foundation, 1st St. and 9th Ave. E. $750,000. Schmidt, Garden & Martin, 104 South Michigan St., Chicago, archts. German & Jenssen, 411 Exch. Bldg., Duluth, associated archts. Noted Oct. 27.

Neb., Lincoln—School, etc.—Bd. Educ. will probably take bids about Jan. 11, 3 story, 169 x 261 ft. school and 1 story, 101 x 170 ft. shop, rein.-con. $750,000. Fiske & Meginnis, Bankers Life Bldg., archts. Noted Aug. 18.

Mo., Cape Girardeau—Church and Sunday School—Christian Church plans brick, stone and steel. $150,000. C. H. Swift, pastor. Architect not selected.

Utah, Ogden — Gymnasium — Mormon Church, South Temple St., Salt Lake City, having plans prepared by Wood & Jensen, archts., Eccles Bldg., for gymnasium at Weber College, 2445 Jefferson Ave., here. $300,000.

Utah, Salt Lake City—Club—Building Com. Elks Club, 85 State St., opens bids about Jan. 1, 5 story, rein.-con., brick, steel and terra cotta, South Temple St. $300,000. Scott & Welch, Dooley Bldg., archts. Noted Nov. 17.

Cal., Long Beach—Hotel—G. W. and C. E. McIntyre, of Long Beach Auto Tours System, 125 East Ocean St., having plans prepared by H. Lochridge, archt., 700 Markwell Bldg., 12 story, 65 x 85 ft., brick, marble and tile, Ocean Blvd., near American Ave. $500,000.

Cal., Long Beach—Office and Theatre—Long Beach Bathhouse & Amusement Co. having plans prepared by J. C. and W. H. Austin, archts., 1st Natl. Bank Bldg., 6 story, rein.-con. with brick or terra cotta facing, Ocean Blvd. $300,000.

Cal., Los Angeles—Church—Hollywood Christian Church, Hollywood, having plans prepared by R. H. Orr, archt., 1301 Van Nuys Bldg., 2 story, 54 x 125 ft. bible school and 1 story, 60 x 88 ft. auditorium, both brick and terra cotta, Morgan Pl., near Hollywood Blvd., here. $150,000.

Cal., Los Angeles—Library—Bd. Library Comrs. receiving competitive sketches for library, Normal Hill Center. $1,500,000 voted for project.

Cal., Los Angeles—Office—J. H. Adams, c/o R. D. King, archt., 519 Van Nuys Bldg., having plans prepared for 10 story, 100 x 146 ft., rein.-con., terra cotta and brick, Olive St. near 8th St.

Cal., San Francisco—School—City and San Francisco Co., having preliminary plans prepared by J. Reid, Jr., city archt., City Hall, 3 story, with 2 story wing, rein.-con. and terra cotta tile, 23rd and Valencia Sts. $300,000.

BIDS DESIRED

N. Y., Willard—Hospital—Dec. 21, by State Hospital Comn., Albany, construction, heating, sanitary and electric work—accommodations for tubercular patients at Willard State Hospital, here. L. F. Pilcher, Albany, state archt.; adv. this issue.

N. J., Princeton—Dormitories—Dec. 20, by Zantzinger, Borie & Medary, archts., Otis Bldg., Phila., 3½ story, 41 x 130 ft., with 3 wings, cut stone and hollow tile, plain foundation, here, for Princeton University. $250,000.

Pa., Braddock — Theatre — Crystal Amusement Co., c/o D. Burke, Braddock Ave., 1 story, 80 x 125 ft. Braddock Ave. $250,000. Work will be done by separate contracts. Foundation contract to Hodder Constr. Co., Braddock; steel to Memphis Steel Constr. Co., Magee Bldg., Pittsburgh. Noted Nov. 24.

Pa., Phila. — Gymnasium — Dec. 20, by Seeburgher & Rabenold, archts., 1524 Chestnut St., 1 story, 62 x 150 ft. brick and steel, plain foundation, City Line Ave., for Episcopal A. C., c/o R. Anderson, Locust and Juniper Sts. $150,000.

W. Va., Charleston — Theatre — T. L. Kearse, Strand Bldg., receiving bids 3 story, 94 x 225 ft., brick and stone. Steel work to Massillon Bridge Co., Massillon, O. Total $250,000. Mills & Millspaugh Co., 67 East Long St., Columbus, O., archts. Noted Nov. 3.

N. C., Elizabeth City — Institutional—Dec. 17, by W. O. Saunders, chn. Building Com. of State Normal School for Negroes, administration building, principal's residence, practice school, sewerage and waterworks systems, on campus. $200,000. P. W. Moore, principal. J. A. Salter, Commercial Bank Bldg., Raleigh, archt. Noted Aug. 4.

La., New Orleans—Dec. 23, by Orleans Parish School Bd., City Hall, building Gayarre School, Lafayette Ave. and Painter St. $200,000. N. Bauer, secy. School Bd.

Tenn., Johnson City—Hotel—Chamber of Commerce, 10 story hotel. Work will be done by separate contracts. W. L. Stoddart, 9 East 40th St., New York, archts. and engrs. Noted Apr. 7.

O., Cleveland—Bank—Graham, Anderson, Probst & White, archts., 68 East Jackson Blvd., Chicago, taking bids 3 story, 120 x 137 x 137 ft., fireproof construction, Bway. and East 55th St., here, for Union Trust Co. $300,000.

O., Columbus—School—Dec. 29, by E. McCune, clk. Bd. Educ., Town and High Sts., 2 story, 110 x 190 ft., brick and concrete, North High St. $175,000. H. D. Smith, Town and High Sts., archt.

O., Toledo — School — Dec. 23, by Bd. Educ., Administration Bldg., 2 story, rein.-con., brick and steel, plain foundation, Ontario and Chicago Sts.

Ind., Clinton — Hospital — Dec. 15, by Comrs. Vermillion Co., (Newport), 3 story, 135 x 180 ft., brick and rein.-con., here. $175,000. J. G. Vrydaugh, 612 Ohio St., Terre Haute, archt.

Mich., Detroit — Library — Dec. 19, by Library Comn., c/o J. B. Kennedy, Woodward Ave., 1 story, rein.-con., brick and steel, plain foundation, Grand River and Stoepel Aves. $150,000. N. R. Burrowes, 610 McKerchey Bldg., archt.

Mich., Flint—School—Dec. 28, by Bd. Educ., c/o A. J. Wildanger, secy., 3 story, 160 x 440 ft. rein.-con., brick, steel and stone, plain foundation, Crapo St. Cost to exceed $1,000,000. Malcomson, Higginbotham & Palmer, 405 Moffat Bldg., Detroit, archts.

Ill., Chicago—Office—J. Hunt, archt., 30 North Michigan Ave., receiving bids 5 story, 90 x 125 ft. addition, at 30 North Michigan Ave., $500,000. Owner c/o architect.

Ill., Chicago—Office and Apartment—B. I. Morris, 140 South Dearborn St., receiving bids 3 story, 125 x 155 ft., rein.-con., brick and steel, North Kedzie and Eastwood Aves. $300,000. A. L. Himelblau, 179 West Washington St., archt.

Wis., Madison—Hospital—Jan. 17, by University of Wisconsin, Bd. Regents, 6 story, 150 x 250 ft., brick, rein.-con. and stone. $1,200,000. A. Peabody, Capitol Bldg., archt. Noted Nov. 17.

Wis., Superior—Auditorium—Dec. 15, by A. F. Chadwick, chn. of city building com., 2 story, 75 x 140 ft., rein.-con., steel and brick, 14th St. and Ogden Ave. $150,000. J. O. Bock, Superior Newton Bldg., 1114 Tower Ave., archt. and engr.

Minn., St. Paul—School—Dec. 12 (change of date), by H. W. Austin, city purch. agt., 4 story, 73 x 125 ft., rein.-con., brick, stone and tile, 14th and Jackson Sts. $185,000. C. A. Hausler, City Hall, archt. Noted Dec. 1.

Mo., St. Louis—Store—Dec. 20, by L. E. Dorr, 3922 Washington Ave., 2 story, brick and terra cotta, De Baliviere and Waterman Aves. $150,000. P. J. Bradshaw, International Life Bldg., archt. Noted Nov. 24.

Tex., Dallas—Office—Dec. 15, by Barghbaugh & Whitson, archts., Southwest Life Bldg., 18 story, rein.-con., brick and stone, Pacific and Masten Sts., for Schneider Estate. $1,000,000.

Okla., Okeene — Church — Dec. 15, by Roman Catholic Church, c/o J. Francis, pastor, and Monett & Reid, archts., Empire Bldg., Oklahoma City, 2 story, 58 x 135 ft., brick and stone. $150,000. Noted Sept. 29

Okla., Tulsa—Church—Dec. 22, by G. Winkler, archt., Palace Bldg., 3 story, 100 x 140 ft., brick and stone, 5th and Boston Sts., for Trinity Episcopal Church. $300,000. R. P. Crumb, pastor. Noted June 9.

Cal., Petaluma—High School—Dec. 27, by Bd. Educ., 2 story, Bway. and Fair St. $250,000. P. J. Blim, secy. B. Jones, 110 Washington St., archt.

BIDS RECEIVED

Mass., Roxbury (Boston P. O.)—School—Schoolhouse Comn., City Hall Annex, 2 story, 139 x 145 ft., brick, on School St., from T. O'Connor & Co., Cambridge, $283,000; F. Coburn, 294 Wash. St., Boston, $289,000; C. & R. Constr. Co., 3 Tremont Row, Boston, $314,000. Noted Mar. 17

Ind., Lafayette — Economics — Purdue University 2 story, 125 x 140 ft., brick, from H. B. Krauel, Danville, Ill., $161,500; W. D. Jungclaus, 825 Massachusetts Ave., Indianapolis, $176,500; A. E. Kemmer, 644 North 7th St., $177,000.

CONTRACTS AWARDED

Mass., Boston—Hospital—City Hospital, Harrison Ave., altering present building and constructing 2 story, 43 x 150 ft. and 43 x 107 ft. top addition, also two 6 story, 28 x 43 ft. and 40 x 43 ft. annexes, to Evatt Constr. Co., 161 Devonshire St., $486,000. Noted Dec. 1.

Mass., Boston—Store and Office—W. J. Stober, 1230 Commonwealth Ave., 6 story, 25 x 150 ft., rein.-con. and brick, 256 Boylston St., to N. Hurwitz, Old South Bldg., $150,000.

N. Y., New York—Apartment—Blossom Realty Co., 1415 Franklin St., 5 story, brick, steel and stone, plain foundation, 178th St. and Grand Concourse, by day labor. $250,000. Margon & Glaser, 2806 3rd Ave., archts. and engrs.

N. Y., New York—Apartment—Gorman Bros., c/o Sommerfeld & Steckler, archts. and engrs., 31 Union Sq., 5 story, brick, steel and stone, plain foundation, 178th St. and Anthony Ave., by day labor. $150,000.

N. Y., New York—Theatre and Store—S. and L. Bldg. Co., c/o Margon & Glaser, archts. and engrs., 2806 3rd Ave., brick, steel and stone, plain foundation, 180th St. and Boston Rd., by day labor. $200,000.

N. J., Jersey City—Hotel—Knickerbocker Co., masonry and carpentry contract for 1 story (ultimately 7 story), 2856 Hudson Blvd., to J. Mitchell, Inc., 76 Montgomery St., $44,700. Noted Nov. 3.

Ill., Altona—Home—St. Joseph's Hospital, 6 story, 44 x 87 ft., rein.-con., brick and stone, to M. J. Hoffman Constr. Co., Furniture Bldg., Evansville, Ind., $150,000.

O., Columbus—Bank—Commercial Natl. Bank, Long and High Sts., 2 story, 62½ x 121 ft., East Long St.; steel, to Case, Crane & Eng Co., Curtis Ave.; steel construction, to Middle States Constr. Co., 524 East Hudson St. Soon takes bids for brick, stone and vault work. Total $300,000. Noted Nov. 3.

Ill., Aurora — Temple — Aurora Masonic Temple Assn., c/o C. Edgerton, secy., 188 South Bway., 5 story, 92 x 150 ft., brick, stone and steel, to E. P. Strandberg, 111 West Washington St., Chicago, $250,000. Noted Oct. 27.

Ill., Peoria—School—Bd. Educ., building Harrison School, 2 story, rein.-con., brick and stone, to R. Iben, Peoria, $165,000. Noted Nov. 17.

Wis., Milwaukee — Church — Ebenezer Evangelical Lutheran Congregation, 2448 Center St., 80 x 92 ft., brick and stone, plain foundation, Center St., to H. C. Breest, 2408 Keefe Ave., $150,000. Noted May 10.

Cal., San Francisco—Office—Roos, Dunn & Williams, 4 story, 33 x 77 ft., rein.-con., Montgomery St., to MacDonald & Kahn, 130 Montgomery St., $200,000.

Federal Government Work

PROPOSED WORK

N. Y., Plattsburg—Monument—U. S. Engineer, 1st Dist., Room 710, Army Bldg., New York, rejected bids opened Nov. 15 for MacDonough Memorial, here. Noted Oct. 20.

Cal., Palo Alto—Hospital—Treas. Dept., Wash., D. C., plans U. S. Pub. Health Serv. Hospital, here.

BIDS DESIRED

N. J., Metuchen—Water Supply System—Dec. 28, by Constructing Quartermaster, Room 510, 39 Whitehall St., New York, removing existing 4, 6 and 8 in. wood stone pipe and laying 1,100 ft. 4 in., 5,000 ft. 6 in. and 5,200 ft. 8 in. c.i. Class B pipe, and furnishing 1,000 ft. 6 in. and 340 ft. 8 in. c.i. pipe and specials, for Raritan Arsenal, here.

Va., Yorktown—Water Supply System—Spec. 4514—Dec. 14 (change of date) by Bureau Yards & Docks, Navy Dept., Wash., D. C., water supply system, at Naval Fuel Depot, here. Noted Nov. 17

S. C., Charleston—Fire Protection System—Spec. 4558—Dec. 21, Bureau Yards & Docks, Navy Dept., Wash., D. C., foam fire protection system, at Navy Yard, here. Noted Dec. 1.

Ga., Augusta—Materials—Dec. 19, Treas. Dept., Wash., D. C., materials for construction of U. S. Pub. Health Serv. Hospital, here. J. A. Wetmore, acting superv. archt.; adv. this issue.

Ill., Oak Park—Extension to Workroom, etc.—Dec. 20, Treas. Dept., Wash., D. C., extension to workroom, mailing vestibule, etc., U. S. Post Office, here. J. A. Wetmore, acting superv. archt.; adv. this issue.

Wis., Vicksburg—Terminal—Dec. 20, by War Dept., Inland and Coastwise Waterways Service, at office of Federal Manager,

Federal Government Work (Continued)

321 Custom House, New Orleans, La., river and rail terminal, here.

BIDS RECEIVED

O., Dayton — Home — Bd. Mgrs. Natl. Home for Disabled Volunteer Soldiers, received low bid for 2 story, with five wings, brick, steel and concrete, here, from Davis-Hunt Constr. Co., 907 Schwind Bldg., $704,908. Noted Nov. 24.

Wash., Walla Walla — Mechanical Equipment — Treas. Dept., Wash., D. C., mechanical equipment in U. S. Pub. Health Serv. Hospital, here, from G. E. Eng. Co., 449 West 42nd St., New York, $178,500; Austin Eng. Co., 121 West 42nd St., New York, $223,375. Noted Nov. 17.

CONTRACTS AWARDED

Mass., Boston—Dredging—U. S. Engineer, dredging in Weymouth Fore River, here, to J. S. Packard Dredging Co., 1004 Turks Head Bldg., Providence, R. I., $44,226. Noted Oct. 27.

Mass., Rutland—Hospital—Treas. Dept., Wash., D. C., U. S. Pub. Health Serv. Hospital, here, to M. Serretto, 3 Tremont Row, Boston, $282,673; mechanical equipment for above, to G. E. Eng. Co., 449 West 42nd St., New York, $146,300. Noted Dec. 1.

D. C., Bellevue—Chimney—Spec. 4534—Bureau Yards & Docks, Navy Dept., Wash., for chimney at Naval Experimental and Research Laboratory, here, to Rust Eng. Co., 1406 G St., N. W., $5,743 (70 days). Noted Nov. 24.

Ga., Savannah—Dredging—U. S. Engineer, P. O. Bldg., dredging in Brunswick Harbor, here, to J. Emile Dredging Co., Duval Bldg., Jacksonville, Fla., $1.37 per cu.yd. Noted Nov. 3.

Tenn., Nashville—Derrick Boat—U. S. Engineer, Custom House, steel derrick boat to Dravo Contg. Co., Diamond Bank Bldg., Pittsburgh, Pa., $11,785. Noted Nov. 24.

Mo., St. Louis—Vessel—Mississippi River Comn., 1311 International Life Bldg., motor vessel to J. Eichleay, Jr. Co., 45 South 20th St., Pittsburgh, Pa., $36,990. Noted Oct. 20.

Wash., Keyport—Tower—Spec. 4538—Bureau of Yards & Docks, Navy Dept., Wash., D. C., 210 ft. radio tower, at Naval Radio Sta., here, to C. F. Martin, 4120 Dayton Ave., Seattle, $6,713 (120 days). Noted Dec. 1.

Wash., Seattle—Emergency Dams—U. S. Engineer, for emergency dams at Lake Washington Ship Canal Locks, here, to Dravo Contg. Co., Diamond Bank Bldg., Pittsburgh, Pa., $96,731. Noted Sept. 29.

Wash., Walla Walla—Hospital—Treas. Dept., Wash., D. C., U. S. Pub. Health Serv. Hospital, here, to J. H. Weise, 5103 Cass St., Omaha, Neb., $123,880. Noted Dec. 1.

Ore., Portland—Stone—U. S. Engineer, 1st Dist., stone for north jetty construction, here, to A. D. Kern, Lumber Co., Exch. Bldg., $101,150.

Cal., Eureka—Tower—Spec. 4533—Bureau Yards & Docks, Navy Dept., Wash., D. C., 300 ft. radio tower, at Naval Radio Sta., here, to Eureka Boiler Wks., foot of T St. Noted Dec. 1.

Miscellaneous

PROPOSED WORK

Subway, etc. — Rochester, N. Y. — Bd. Estimate having plans prepared for subway in canal channel from Griffith St. to point 800 ft. west of Oak St. for purposes of an Industrial and Rapid Transit R.R., incl. necessary superstructure, pavements and walks, 10,000 cu.yd. earth and 50,000 cu.yd. rock excav., 25,000 cu.yd. rein.-con., 400 ton steel, about 1 mi. single trolley track, 15,000 yd. asphalt and 5,000 yd. medina stone pavement. $1,800,000. L. Brown, city engr.

Coal Tipper and Bin—Morgantown, W. Va.—Wilson Bros. Coal Co., Fairchance, Pa., soon takes bids for coal tipper and bin, near here. $25,000. Monongahela Valley Eng. Co., Morgantown, structural engrs.

Athletic Bowl—Montgomery, Ala.—Plans athletic bowl with concrete bleachers and grand stands. $50,000. H. A. Washington, city engr.

Grandstand—Peoria, Ill.—Peoria Baseball Fans Assn., c/o J. Ryan, pres., having plans prepared for rein.-con. grandstand. $50,000. Day & Bullard, Peoria Life Bldg., archts.

Golf Course—Lakewood (Cleveland, P. O.), O.—See "Buildings".

Road Machinery—Alma, Wis.—Buffalo Co. appropriated $6,000 for road machinery. J. Reinhardt, Nelson, Comr.

Road Machinery—Ashland, Wis.—Ashland Co. appropriated $10,000 for road machinery. W. E. Dillon, Highbridge, comr.

Road Machinery—Barron, Wis.—Barron Co. voted to purchase gravel crusher, tractor, graders, trucks aand other tools. E. Gleason, comr.

Road Machinery—Chippewa Falls, Wis.—Chippeawa Co. appropriated $8,000 for road machinery. P. O. Lokrantz, comr.

Road Machinery—Durand, Wis.—Pepin Co., voted $1,500 for road machinery. G. A. Goss, comr.

Road Machinery—Eau Claire, Wis—Eau Claire Co. appropriated $20,000 for road machinery. G. Osborne, comr.

Road Machinery—Elkhorn, Wis.—Walworth Co. appropriated $2,000 for road machinery. H. J. Peters, comr.

Road Machinery—Ellsworth, Wis.—Pierce Co. appropriated $5,000 for road machinery. C. F. Kenall, comr.

Drag Line, Conveyed, etc.—Fond du Lac, Wis.—Fond du Lac Co. voted to purchase drag line, conveyor, grizzley, bins and screen for gravel plant. G. Treleven, comr.

Road Machinery, etc.—Hudson, Wis.—St. Croix Co. appropriated $10,000 for road machinery, incl. heavy grader, wheelers and slips. J. Caffrey, Hammond, comr.

Road Machinery—Kewanee, Wis.—Kewaunee Co. appropriated $1,000 for road machinery. M. Shaw, Algoma, comr.

Road Machinery, etc.—Merrill, Wis.—Lincoln Co. voted $10,000 for road machinery, incl. patrol graders and other small equipment. H. H. Kuehling, comr.

Road Machinery, etc.—Oshkosh, Wis.—Winnebago Co. appropriated $5,000 for new road machinery, incl. one paver. J. Binning, comr.

Crusher, etc.—Phillips, Wis.—Price Co. appropriated $8,000 for crusher, tractor, graders and wheelers. B. M. Griffin, comr.

Road Machinery, etc.—Richland Center, Wis.—Richland Co. appropriated $15,000 for road machinery, incl. large grader, 6 patrol graders and possibly steam shovel. W. V. Robinson, comr.

Road Machinery, etc.—Shawano, Wis.—Shawano Co. appropriated $20,000 for road machinery, incl. crusher outfit and other equipment. W. F. Meyer, comr.

Dock—Superior, Wis.—Engineering Dept. of Great Northern R.R., 4th and Jackson Sts., St. Paul, Minn., takes bids about Dec. 31, steel iron ore dock to replace wooden structure, pile and rein.-con. foundation, concrete apron, 2,200 ft. long, 62⅜ ft. wide x 40½ ft. high, on Allouez bay, here. About $2,000,000. Noted June 20.

Road Machinery—Superior, Wis.—Douglas Co. appropriated $15,000 for road machinery. C. Hanson, comr.

Road Machinery—Viroqua, Wis.—Vernon Co. appropriated $3,100 for road machinery. A. Ristow, comr.

Road Machinery — Wausau, Wis. — Marathon Co. appropriated $12,000 for road machinery. J. H. Vogt, Wausau, comr.

Road Machinery — West Bend, Wis. — Washington Co. appropriated $25,000 for road machinery. C. J. Johnson, comr.

Tunnel—Lamar, Mo.—See "Industrial Works."

Dock, etc. — Tacoma, Wash. — Port of Tacoma probably opens bids Dec. 29, dock and 180 x 1040 ft. fireproof transit shed, 10,215 cu.yd. rein.-con., 18,270 lin.ft. wooden piling, 2,056,000 ft. timber, 539 ton steel, 93,620 lin.ft. creosoted wood piling, 74,760 lin.ft. concrete piling, alternative, 74,760 lin.ft. gunite piling, 81,000 sq.ft. wire mesh. $500,000. G. W. Osgood, Tacoma, port engr. Noted Nov. 3.

Dock Equipment—Tacoma, Wash.—Port of Tacoma takes bids probably in February, for four 3-5 ton steel cranes, loft and boom type, one 2 ton electric monorail hoist, 220 v.d.c., about 4,000 ft. of monorail trackage, miscellaneous conveyor equipment and miscellanous stacking machines. G. W. Osgood, 612 Tacoma Bldg., port engr.

Electric Lighting and Power System—Fullarton, Ont. — Fullarton Twp. plans electric lighting and power distribution system $48,000. Address R. H. Pomeroy, Fullarton.

Block Signal System—Hamilton, Ont.—Grand Trunk Ry., London, having plans prepared block signal system from here to Weston, $150,000. C. Forrester, London, supt.

BIDS DESIRED

Baseball Stadium—New York, N. Y.—Dec. 22, by Amer. League Baseball Club of New York, 226 West 42nd St., furnishing and erecting structural steel for proposed stadium, west of River Ave., between East 157th and 161st Sts. Osborn Eng. Co., 2848 Prospect Ave., Cleveland, O., engrs.; adv. this issue.

Dredge Repair—New York, N. Y.—Dec. 12, by Dept. Docks & Ferries, Pier "A" North River, repairs to dredge "Grabit". $50,000.

Pier—New York, N. Y.—Dec. 12, by Commissioner Docks & Ferries, Pier "A" North River, new pier at foot of 44th St., North River. $500,000.

Steam Asphalt Roller—New York, N. Y.—Dec. 13, by H. Bruckner, pres. Bronx Boro, Municipal Bldg., furnishing and delivering one 5 ton steam asphalt roller.

Wood Paving Blocks—New York, N. Y.—Dec. 15, by Bd. Purch., Municipal Bldg., furnishing and delivering wood paving blocks to Dept. Plant & Structures. G. A. Whalen, comr. Plant & Structures, chn.

Wharf Cranes—Rochester, N. Y.—Jan. 4, by C. L. Cadle, supt. Pub. Wks., Albany, two 2 ton, electric, overhead wharf cranes, here, Terminal Contr. 120; adv. this issue.

Power and Distributing Equipment—New Orleans, La.—New Orleans Ry. & Light Co., 209 Baronne St., receiving bids, one 20,000 kw. turbine complete incl. installation, $540,000, relaying and switching apparatus at central station, $100,000, additional switchboards, $25,000, new building for Bourbon substations, $30,000, new rotary for Edison system, $50,000, new rotary for railway system, $50,000, two 6,600 volt underground feeders, $28,000 each, one 6,600 volt tie line from Magazine to Bourbon substations, $12,000, one 6,600 volt tie line from Edison to Consumers substation, $10,000, underground ducts, $50,000, reroute half of 6,600 volt feeders to Canal and Valence substations, $25,000, extend Shrewbury feeder into Canal substation, $8,000, new feeders for distribution system and rearrangement of existing feeders, $44,000. A. Kempster, genl. mgr.

BIDS RECEIVED

Inspection Shed Enclosure—Brooklyn, N. Y.—Transit Comn., 49 Lafayette St., New York, opened bids Dec. 5, inspection shed and its appurtenances in Livonia Ave. Yard, between Elton and Linwood Sts. from New Lots to Stanley Aves., here, from C. J. Adams & Sons, 308 West 20th St., New York, $180,000; N. A. Deiser, 296 Fenimore St., $181,000; P. T. Cox Contg. Co., 154 Nassau St., New York, $186,400. Noted Nov. 24.

Binder Stone, etc.—New York, N. Y.—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Nov. 30, furnishing and delivering 1,200 cu.yd. binder stone, from Calvin Tomkins Co., 30 Church St., $1.83 per cu.yd., total, $2,196, New York Trap Rock Corp., 101 Park Ave., $1.90, $2,280; 200,000 wood paving blocks, from Amer. Creosoting Co., 17 Battery Pl., $8,310, W. J. Fitzgerald, 547 West 45th St., $42.40 per M, $8,480. Noted Nov. 24.

Heating and Plumbing System—Rochester, N. Y.—C. L. Cadle, supt. Pub. Wks., Albany, opened bids Nov. 30, heating system terminal, Contr. 230 H, from L. C. Gresens, 49 2nd St., $7,295; W. F. Devendorf & Co., 470 Court St., $7,585, M. W. Utz, 1072 East Main St., $7,950; plumbing system terminal, Contr. 230 P, from Arensmeyer, Warnock & Zahrndt, 114 Monroe Ave., $4,177, Howe & Bassett Co., Inc., 23 Stillson Ave., $4,475, Barr & Creelman Co, 74 Exch. St., $4,500. Noted Nov. 17.

Caterpillar Tractor—Virginia, Minn.—For 5 ton caterpillar tractor with combination sidewalk and street snow plow attachments, from Boyle & Mather, Virginia, $3,750 with $400 extra for plows; Turner Co., Duluth, $3,973; J. Carhart, Virginia, $3,926 with $155 and $110 extra for plows. Noted Nov. 17.

Coal Trestle — Orient, O. — Dept. Pub. Welfare, Columbus, opened bids Nov. 23, coal trestle and railroad siding, institution for feeble minded, here, from Grant-Boulton Co., Central Natl. Bank Bldg., Columbus, $19,270; Gaty Constr. Co., Central Natl. Bank Bldg., Columbus, $20,095. Noted Nov. 17.

CONTRACTS AWARDED

Coal Handling Equipment—Thiells, N. Y.—M. B. Patterson, pres. Bd. Mgrs. of Letchworth Village, 7 Wall St., New York, coal handling equipment for Letchworth Village, here, to R. J. Mansfield, 135 William St., New York, $11,727. Noted Oct. 13.

Dock—Jersey City, N. J.—Repairing and rebuilding portions Howell St. Dock, Hudson River, to Stillman-Delehanty-Ferris Co., 15 Exch. Pl., $33,125. Noted Dec. 1.

Trestle and Bins—Wash., D. C.—Dist. Comrs., 509 Dist. Bldg., for trestle and bins to R. C. Mansfield, 135 William St., New York, $14,980. Noted Nov. 3.

Fire Hydrants—Detroit, Mich.—Dec. 14, by G. J. Finn, comr. Purchases & Supplies, 710 Marquette Bldg., 300 six in. double standard fire hydrants. $15,000.

Culverts—Dayton, O.—For 3 rein.-con. slab type culverts over Miami and Erie Canal, by force account. $30,000. J. E. Houk, city engr.

Stadium and Coliseum—Los Angeles, Cal.—Community Development Assn., 1020 Merchants Bank Bldg., rein.-con. and stone, peristyle, at Exposition Park, to Edwards, Wildey & Dixon Co., 515 Black Bldg., $772,000. Noted May 19.

Wharf—Parry Sound, Ont. — Dominion Government, Ottawa, repairing wharf, here, to Weddell & Saunders, Trenton, $28,866.

OFFICIAL PROPOSALS

Bids: Dec. 14.

Road Construction

Providence, R. I.

Sealed proposals for the construction of the following sections of State Highway will be received by the State Board of Public Roads at its office, State House, Providence, R. I., until 12 M. on Wednesday, December 14, 1921, at which time they will be opened and read in public.

1. Smithfield-Farnum Pike, 1.4 miles-bituminous macadam.

Principal estimated quantities.
7100 cu.yds. Earth excavation
700 cu.yds. ledge excavation
2800 cu.yds. Stone foundation
850 cu.yds. Gravel foundation
2500 lin.ft. Guard rail
4300 tons Crushed trap rock
38,000 gals. Hauling, heating, applying binder.

2. Gloucester, Scituate-Chepachet southerly on the Cherry Valley and Chopmist Hill roads to Danielson Pike, 5.9 miles bituminous concrete (Topeka).

Principal estimated quantities.
28000 cu.yds. Earth excavation
2000 cu.yds. Ledge excavation
2500 cu.yds Borrow
10750 cu.yds. Stone foundation
2000 cu.yds. Gravel foundation
8000 lin.ft. Guard rail
15000 tons Crushed stone base
62000 sq.yds. Bituminous concrete surface.

Bids must be made upon blank forms to be furnished by the Board.

No bids will be accepted unless accompanied by a certified check for the sum of $200.00 payable to the State of Rhode Island.

The Board reserves the right to reject any and all bids, and to give preference to towns or cities, in accordance with Section V of Chapter 84 of the General Laws.

Plans may be examined and specifications and bidding blanks may be obtained at the office of the State Board of Public Roads, State House, Providence, R. I., on and after Friday, December 2, 1921, every week day (except holidays and Saturdays), between the hours of 9 A.M. and 5 P.M., Saturdays 9 A.M. to 12 M.

State Board of Public Roads,
ABRAM L. ATWOOD,
BENJAMIN F. ROBINSON,
FRANK COLE,
J. HENRY WOODARD,
ALTON HEAD.

Bids: Dec. 13.

Pipe Line and River Crossing

Monroe, Michigan.

Sealed proposals will be received by the City Clerk of Monroe up to 7:30 o'clock P.M., Central Standard Time, of Tuesday, the 13th day of December, 1921, for the construction of a cast iron water pipe line and river crossing for the City waterworks.

The pipe line will comprise about 1,120 lineal feet of Class A and 530 lineal feet of Class B 24-inch cast iron pipe, with valves and pipe specials. A concrete valve vault will be constructed at the junction of the new pipe line with the existing 16-inch pipe line in Elm Street.

The plans and specifications under which the work is to be done may be examined at the office of the City Clerk, Monroe, Michigan, or at the office of Hoad and Decker, Consulting Engineers, Ann Arbor, Michigan, and copies of the same may be obtained by making a deposit of five dollars, which will be refunded upon their return in good condition.

A certified check for a sum not less than five per cent of the amount of the proposal will be required with each proposal.

The right to accept any proposal, to reject any or all proposals, and to waive defects in proposals is reserved by the City.

C. B. SOUTHWORTH,
Mayor.
F. M. KRESSBACH,
City Clerk.

HOAD AND DECKER,
Consulting Engineers,
Ann Arbor, Michigan.

These Advertisements

are official notices that bids are wanted from other than local bidders.

Maximum competition is desired, and this is assured through Engineering News-Record's large NATIONAL circulation, reaching almost every contractor, dealer, and manufacturer in the country interested in bidding on public work contracts. It is the DOMINANT MEDIUM for advertising contracts for work, material, and supplies for towns, cities, counties, state and government departments, and private organizations.

Official Proposals reaching our New York Office by 10 A. M., Tuesday can usually be printed in the issue out Thursday.

Rate: 40 cents a line an insertion.

Bids: Dec. 27.

Pipe, Valves, and Fittings

Walla Walla, Wash.

Notice is hereby given that sealed proposals will be received by the City Commission of the City of Walla Walla, Washington, up to 10:00 A.M. of the Twenty-seventh day of December, 1921, for the material incident to the complete construction of the 2nd part of the 3rd Division of proposed additions and betterments to and extensions of the water system, owned and operated by said City, under and by virtue of Ordinance No. A-435, as amended by Ordinance No. A-519.

The material contemplated is as per the following schedule to-wit:

1. 24" steel pipe, No. 8 U. S. gauge, approximately 11,250 lin.ft.
2. 1-20" Gate Valve, geared.
3. 1-24" Gate Valve, by pass, geared.
4. Miscellaneous cast iron fittings.

Plans, specifications, form of proposal and contract may be obtained from the City Clerk.

By order of the City Commission of the City of Walla Walla.

E. T. CHURCHMAN,
City Clerk.

Bids: Dec. 22.

Furnishing Conveyor Belts

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, Suite 200 New Orleans Court Building, New Orleans, La., until 7:30 P.M., December 22, 1921, and then publicly opened for the furnishing of conveyor belts for use at the Marine Leg Unloader at the site of the Public Grain Elevator.

A deposit of Seven Hundred Dollars ($700.00) in cash or certified check is required with proposal.

Bond of 50% of bid is required with Notarial Contract.

Payment of 95% of the bid will be made upon delivery of material on the site and after acceptance of same by the Chief Engineer of the Board. The balance will be paid 20 days after belts have been installed and finally accepted.

Proposals must be submitted on a special proposal form prepared by the Board.

Specifications and proposal forms are on file in the office of the Supervisor of Purchases, Mr. J. W. Westerfield, No. 1 Canal Street, by whom full sets will be furnished to prospective bidders.

The right is reserved to reject any or all bids and to waive informalities.

R. S. HECHT,
President.
J. F. FINKE, Jr.,
Secretary.

Req. Ed—10304.

Bids: Dec. 29.

Dredging, etc.

Portland, Maine.

Sealed bids for removing structures, dredging and filling and constructing seawall will be received by the Directors of the Port of Portland at their office, 67 Commercial Street, Portland, Maine, until 2 o'clock P.M. on Thursday, December 29th, 1921, at which time and place the bids will be publicly opened and read aloud.

The timber deck of a part of Franklin Wharf and the timber portion of Galt Wharf are to be removed, a seawall built at the inner end of the proposed pier and dock, and the dock together with a portion of the adjacent Grand Trunk dock dredged to depths varying from 30 feet to 35 feet below mean low water.

Before the award of the contract any bidder may be required by the Directors to show that he has the necessary experience, ability, equipment and financial resources to perform the work within the time stipulated and in a manner satisfactory to the Engineers.

Each bid must be accompanied by a properly certified check for the sum of five thousand ($5,000) dollars.

A bond satisfactory to the Directors will be required for the faithful performance of the contract, said bond being in the sum of fifty thousand ($50,000) dollars.

A more complete description of the work to be done is given in the Notice to Bidders, the forms of Bid, Contract and Bond and the Specifications and Contract Drawings.

Copies of the foregoing may be inspected at the office of the Directors of the Port of Portland, at Portland, and at the office of the Engineers, Fay, Spofford & Thorndike, 15 Beacon Street, Boston, Massachusetts.

Receipt of bids will be subject to the conditions stated in said notice to bidders.

The right is reserved to reject any or all bids.

HENRY F. MERRILL,
President.
BERTRAND G. McINTIRE,
FRED W. BUNKER,
JAMES Q. GULNAC,
ALEXANDER T. LAUGHLIN,
Directors of the Port of Portland.

FAY, SPOFFORD & THORNDIKE,
Engineers.
15 Beacon St., Boston, Massachusetts.
November 28th, 1921.

Bids: Dec. 22.

Steel Water Tank

Boston, Mass.

Commonwealth of Massachusetts. Metropolitan District Commission. Water Division, Steel Tank for Arlington Reservoir. Sealed proposals will be received at the office of the Metropolitan District Commission, 18 Tremont Street, Boston, Mass., until 2 o'clock P.M. of Thursday, December 22, 1921, for removing and disposing of an existing water tank 40 feet in diameter and 60 feet in height, erected in 1894, on Arlington Heights, and building on the same site as a steel tank 75 feet in diameter and 61 feet 3 inches in height on a foundation provided by the Commonwealth. Plans showing the location and general character of the work may be seen and pamphlets containing further information for bidders, forms of proposal, contract and specifications, may be obtained, by prospective bidders experienced in building large steel tanks and having the requisite plant, at the office of William E. Foss, Director of the Water Division, 1 Ashburton Place, Boston. The printed forms must be used in making proposals. Each bid must be accompanied by a certified check for two thousand dollars, and a bond in the sum of twenty thousand dollars will be required for the faithful performance of the contract. The Commission reserves the right to reject any or all bids or to accept the proposal deemed best for the Commonwealth.

GEO. LYMAN ROGERS,
Secretary.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 19	Buffalo, N. Y.	Dec. 8
Dec. 20	Dayton, O.	Dec. 15
Dec. 21	Hammond, Ind. Adv. Dec. 15.	Dec. 15
Dec. 27	Walla Walla, Wash	Dec. 8
Dec. 27	Morris, Minn.	Dec. 15
Dec. 27	Winona, Minn.	Dec 15

SEWERS

Dec. 19	Spring Lake, N. J	Dec. 8
Dec. 19	Akron, O.	Dec. 8
Dec. 19	Lansing, Mich. Adv. Dec. 15.	Dec. 15
Dec. 19	Phila., Pa.	Dec. 15
Dec. 20	Passaic, N. J.	Nov. 24
Dec. 20	Warren, O. Adv. Dec. 1 to 15.	Dec. 8
Dec. 20	Long Island City, N. Y.	Dec. 15
Dec. 21	Brooklyn, N. Y.	Dec. 15
Dec. 21	Brazil Ind. Adv. Dec. 15.	Dec. 15
Dec. 21	Belleville, Ill.	Dec. 15
Jan. 2	Marceline, Mo.	Dec. 15
Jan. 4	Appleton, Wis.	Dec. 15
Jan. 13	Milwaukee, Wis. Adv. Dec. 8 and 15.	Dec. 8

WASTE DISPOSAL

Dec. 20	Alameda, Cal.	Dec. 8

BRIDGES

Dec. 19	Phila., Pa.	Nov. 17
Dec. 20	Illinois	Dec. 8
Dec. 20	Topeka, Kan.	Dec. 15
Dec. 21	Baltimore, Md. Adv. Dec. 8 and 15.	Dec. 8
Dec. 21	St. Marys, Ga. Adv. Dec. 8 and 15.	Dec. 15
Dec. 22	Madison, Wis.	Dec. 1
Dec. 23	Fresno, Cal.	Dec. 15
Jan. 10	Lake Charles, La. Adv. Dec. 15.	Dec. 15

RAILWAYS

Jan. 9	Ontario	Dec. 15

EXCAVATION AND DREDGING

Dec. 20	Carrollton, Mo. Adv. Dec. 1 to 15.	Dec. 8
Dec. 20	Holly, N. Y.	Dec. 8
Jan. 4	Belzoni, Miss. Adv. Dec. 15.	Dec. 15
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Dec. 19	Wadena, Minn.	Dec. 8
Dec. 19	Dallas, Tex.	Dec. 8
Dec. 19	Greenfield, Ind.	Dec. 1
Dec. 19	El Centro, Cal.	Dec. 1
Dec. 19	Elmhurst, Ill.	Nov. 17
Dec. 19	Georgetown, Tex.	Dec. 8
Dec. 19	Breckenridge, Minn	Dec. 8
Dec. 19	Benton, Ill.	Dec. 8
Dec. 19	Olton, Tex.	Dec. 8
Dec. 19	California	Dec. 8
Dec. 19	Mt. Rainer, Md.	Dec. 8
Dec. 19	New York, N. Y.	Dec. 15
Dec. 19	St. George, S. I., N. Y.	Dec. 15
Dec. 20	Illinois	Dec. 8
Dec. 20	Kansas City, Kan.	Nov. 17
Dec. 20	New Mexico	Dec. 8
Dec. 20	Charleston, S. C.	Dec. 15
Dec. 20	El Paso, Tex.	Dec. 15
Dec. 20	Sioux City, Ia.	Dec. 15
Dec. 20	Stockton, Cal.	Dec. 15
Dec. 20	Tampa, Fla.	Dec. 15
Dec. 21	Little Falls, Minn.	Nov. 24
Dec. 21	Kentucky	Dec. 15
Dec. 21	Jefferson, Ia.	Dec. 15
Dec. 22	New York, N. Y.	Dec. 15
Dec. 22	Stapleton, S. I., New York.	Dec. 15
Dec. 22	Missouri Valley, Ia.	Dec. 15
Dec. 22	Oakland, Cal.	Dec. 15
Dec. 22	Pecos, Tex.	Dec. 8
Dec. 22	Barnwell, S. C.	Dec. 15
Dec. 23	Iola, Kan.	Nov. 24
Dec. 23	Fresno, Cal.	Dec. 15
Dec. 23	Johnson City, Tex.	Dec. 15
Dec. 27	Algona, Ia.	Dec. 15
Dec. 30	Moundsville, W. Va.	Dec. 15
Jan. 3	Stockton, Cal.	Dec. 15
Jan. 4	Florida	Dec. 15
Jan. 5	Florida	Dec. 15

INDUSTRIAL WORKS

Bids Close		See Eng. News-Record
Dec. 20	Brockport, N. Y.	Dec. 8
Dec. 20	Phila., Pa.	Dec. 8
Dec. 21	Marcy, N. Y.	Dec. 8
Dec. 27	Fernwood (Trenton P. O.), N. J. Adv. Dec. 15.	Dec. 15
Jan. 15	Corning, Ia.	Dec. 15

BUILDINGS

Dec. 19	Detroit, Mich.	Dec. 8
Dec. 20	Missoula, Mont.	Oct. 20
Dec. 20	Bozeman, Mont.	Oct. 20
Dec. 20	Butte, Mont.	Oct. 20
Dec. 20	Phila., Pa.	Dec. 8
Dec. 20	Princeton, N. J.	Dec. 8
Dec. 20	St. Louis, Mo.	Dec. 8
Dec. 20	Brookline, Mass.	Dec. 15
Dec. 20	Boston, Mass.	Dec. 15
Dec. 21	Willard, N. Y. Adv. Dec. 8 and 15.	Dec. 8
Dec. 22	Tulsa, Okla.	Dec. 8
Dec. 22	Secaucus (Weehawken P. O.) N. J.	Dec. 15
Dec. 23	Eldorado, Kan.	Nov. 24
Dec. 23	Toledo, Ohio	Dec. 8
Dec. 23	New Orleans, La.	Dec. 8
Dec. 27	Petaluma, Cal.	Dec. 8
Dec. 28	Flint, Mich.	Dec. 8
Dec. 29	Columbus, O.	Dec. 8
Dec. 30	Dallas, Tex.	Dec. 15
Jan. 1	Detroit, Mich.	Nov. 17
Jan. 1	Phila., Pa.	Dec. 15
Jan. 17	Madison, Wis.	Dec. 8
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Dec. 19	Hospital—Milwaukee, Wis.	Dec. 1
Dec. 19	Material—Augusta, Ga.	Dec. 8
Dec. 19	Water Treating Plant—Dawson Springs, Ky.	Dec. 15
Dec. 20	Extension to Workroom, etc.—Oak Park, Ill.	Dec. 8
Dec. 20	Terminal — Vicksburg, Miss.	Dec. 8
Dec. 20	Mailing Vestibule, etc.—Oak Park, Ill.	Dec. 8
Dec. 21	Fire Protection System — Charleston, S. C.	Dec. 8
Dec. 23	Cement and Steel—Modesto, Cal.	Dec. 15
Dec. 27	Lighting Plant, etc.—Baltimore, Md.	Dec. 15
Dec. 28	Deferrization Plant—Annapolis Md.	Dec. 15
Dec. 28	Gas, Water, etc.—San Diego, Cal.	Dec. 15
Dec. 28	Dredging—South Brooklyn, (Brooklyn P. O.), N. Y.	Dec. 15
Dec. 28	Valve—Denver, Col.	Nov. 17
Dec. 29	Parcel Post Office—Minneapolis, Minn.	Dec. 15
Dec. 29	Structures—Savage, Mont.	Nov. 17
Jan. 4	Lighting System—San Diego, Cal.	Dec. 15
Jan. 4	Quarters—Duluth, Minn.	Dec. 15
Jan. 12	Distribution System — Watertown, S. D.	Dec. 15

MISCELLANEOUS

Dec. 20	Electric Wiring, etc—Brooklyn, N. Y. Adv. Nov. 3 to Dec. 15.	Nov. 24
Dec. 21	Sanitary Work—Binghamton, N. Y.	Dec. 1
Dec. 21	Cranes, etc. — Stapleton, N. Y.	Dec. 15
Dec. 21	Ties—San Francisco, Cal.	Dec. 15
Dec. 22	Baseball Stadium — New York, N. Y. Adv. Dec. 8 and 15.	Dec. 8
Dec. 22	Power Shovels—New Orleans, La. Adv. Dec. 15.	Dec. 15
Dec. 22	Shed—New Orleans, La. Adv. Dec. 15.	Dec. 15
Dec. 23	Oil Tanks and Boilers—New Orleans, La. Adv. Nov. 3 to Dec. 8.	Nov. 3
Dec. 23	Cement and Steel—Modesto, Cal.	Dec. 15
Dec. 28	Water Supply System—Metuchen, N. J.	Dec. 8
Dec. 29	Seawall—Portland, Me. Adv. Dec. 8 and 15.	Dec. 15
Dec. 29	Transit Shed, etc.—Tacoma, Wash.	Dec. 15
Jan. 3	Electroliers—Redwood City, Cal.	Dec. 15
Jan. 4	Turbo-Generator — Lincoln, Neb.	Dec. 15
Jan. 4	Railway Material—San Francisco, Cal.	Dec. 15
Jan. 4	Wharf Cranes—Rochester, N. Y. Adv. Dec. 8 and 15.	Dec. 8
Jan. 12	Distribution System—Watertown, S. D.	Dec. 15

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. C., Mt. Holly—Mayor soon takes bids water and sewerage system. $100,000. Carolina Eng. Co., Wilmington, engrs. Noted May 26.

Wis., Oconto Falls — Making plans improving and extending waterworks, incl. ½ mi. mains, new reservoirs, etc. $25,000. W. S. Reichardt, Watertown, engr.

Minn., Virginia—Plans to extend mains to purification plant, and make connections. $20,000. E. F. Johnson, city engr.

Mo., Burlington Junction—Defeated $39,000 bonds mains and sewers. E. T. Archer & Co., 612 New England Bldg., Kansas City, engrs. Noted Dec. 1.

Mo., Portageville—City of New Madrid making plans 6 in. c.i. mains, pumps, tank and tower, here. $40,000. A. C. Moore, Joplin, engr. Noted Sept. 15.

Tex., Jacksonville—Voted $150,000 bonds for waterworks improvements. T. E. Acker, mayor. Noted Dec. 1.

Okla, Tulsa—Voted $6,800,000 bonds for additional water supply, to be brought from Spavinaw Creek. J. D. Trammel, Ft. Worth Club Bldg., Ft. Worth, Tex., and W. R. Holway of Holway Eng. Co., 230 Lynch Bldg., Tulsa, engrs.

Ont., Essex—City Council considers modification of equipment in its electrically operated pumping station, with a view to reduction in operating cost. A. Gilboe, supt.

Ont., Petrolea—Takes bids about Jan. 3 for 750,000 gal. concrete and steel reservoir, screen chamber, two electrically driven centrifugal pumps, valves, venturi meter and recorder. $42,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs. Noted Nov. 24.

Ont., Port Credit—Plans pumping plant, pumphouse, pumps, c.i. mains, hydrants, valves and water tank. $75,000. James, Proctor & Redfern, 36 Toronto St., Toronto, engrs.

Ont., St. Thomas—Plans extending water system to Yarmouth Heights and industrial area. $25,000. A. Miller, City Hall, engr.

BIDS DESIRED

O., Dayton—Dec. 20, by Comrs. Montgomery Co., 12,860 lin.ft. of 6-10 ft. trench and 14,730 lin.ft. 6-12 in. Class B c.i. pipe, in East Park Sanitary Sewer Dist. 1. $50,000. K. B. Allen, 606 U. B. Bldg., engr.

Ind., Hammond—Dec. 21, at office Bd. Pub. Wks., steam generating equipment, etc. J. A. Malo, clk. Water Dept.; adv. this issue.

Minn., Morris—Dec. 27, iron filtration plant, rein.-con. settling basin and aerator, filters and pumping equipment. $16,000. C. F. Tweed, 531 Metropolitan Bank Bldg., Minneapolis, engr.

Ark., Lepanto—J. P. Gaines, 206 Falls Bldg., Memphis, Tenn., receiving bids 60 cu.ft. capacity air compressor, 50 and 100 kw generators connected to oil engine, 5 and 15 hp. motors, 4 mi. 4-10 in. c. i. waterpipe, underwriters pump to deliver 500 gal. per min. against 100 lb. pressure, 100,000 gal. 100 ft. steel tank, erected, 100 ft. air tanks, meters, with and without boxes, hydrants, valves, etc. and 5 mi. 6-12 in. salt glazed vitr. sewer pipe, all f.o.b. Lepanto.

BIDS RECEIVED

O., Cleveland—Opened bids Dec. 1, 8 steam turbine reduction-gear driven centrifugal pumping units, from Dravo-Doyle Co., Leader News Bldg., $410,950; Allis-

Waterworks (Continued)

Chalmers Mfg. Co., 122 South Michigan Ave., Chicago, $464,900; Worthington Pump & Mchy. Co., Rockefeller Bldg., $510,000. Noted Nov. 10.

O., West Park—Opened bids Dec. 2, laying 31,000 ft. 4-8 in. c.i. mains, from Trifoletti Bros., Lorain, $65,886; Salem & George Bros., 237 Bradley Court, Cleveland, $67,374; Water & Sewer Impvt. Co., West 98th St., Cleveland, $67,594. Noted Nov. 24.

Minn., St. Paul—H. W. Austin, city purch. agt., opened bids Dec. 5, 7,500 bbl. portland cement, from Gopher Lime & Cement Co., Griggs and Fuller Sts., $2.26 cars, $2.40 delivered, Thompson Yards, Inc., 1645 Hennepin Ave., Minneapolis, $2.31 net delivered, St. Paul Builders Material Co., 605 Ryan Annex, $2.31 cars, $2.40 delivered, Steifel Fuel & Cement Co., 501 Concord St., $2.31 cars, $2.40 delivered; 2,500 cu.yd. silica sand and 5,000 cu.yd. gravel, J. L. Shiely, Co., 305 Dakota Bldg., $2.50 per cubic yard for gravel, $1.40 for sand, both truck delivered. Noted Dec. 1.

CONTRACTS AWARDED

N. Y., Syracuse—Bd. Contract & Supply, City Hall, furnishing 6 mi. 8-36 in. (mostly 36 in.) c.i. pipe for Sect. 1 of 3rd Skaneateles-Syracuse Conduit, to Warren Fdry. & Machine Co., 11 Bway., New York, $227,050; laying c.i. pipe, to A. L. Anderson & Bros., Altoona Trust Bldg., Altoona, Pa., $115,156; furnishing all gate and air valves to Eddy Valve Co., South Waterford St., Troy, $6,515. Noted Dec. 8.

N. C., Rocky Mount — Water and gas mains, by day labor. $20,000.

Tex., Decatur—For waterworks plant and extensions, to Winslett-Eldrige Co., 1001 Main St., Dallas, $118,017. Noted Nov. 10.

Mich., Detroit—Electrical equipment for pumping station on Randolph St., to Turner Eng. Co., 452 Larned St., $50,461. Noted Dec. 8.

Minn., St. Paul—H. W. Austin, city purch. agt., material for Water Dept., 2,400 inverted key curb stops, 150 brass gate valves, 2,240 corporation cocks, 185 goosenecks and 925 fibre washers, to Union Brass & Metal Mfg. Co., Lawson and Mackubin Sts., $4,095; twelve 20 in. flange end, hydrant rising gate stem gate valves, vertical, twelve 24 in., horizontal, twelve 24 in., 45 deg. angle, two 12 in. hub ends, hydrant rising stem gate valves, one 24 in. hub end, hand-operated, non-rising stem spur, geared gate valve, one 48 in. hub end, hand-operated, non-rising, stem bevel geared gate valve, to Kennedy Valve Mfg. Co., East Water St., Elmira, N. Y., $15,158. Noted Nov. 24.

Tex., Graham — For waterworks and sewerage plant, to James Contg. Co., Eastland, $133,000. Noted Nov. 10.

Sewers

PROPOSED WORK

Pa., Beaverdale—Plans 1½ mi. sanitary sewerage system. J. A. Fortenbaugh, Harrisburg, state health engr., and C. Stokes, Harrisburg making surveys. I. A. Boucher, c/o Beaver Run Coal Co., Beaverdale, interested.

Pa., Ellwood City — Plans sewage disposal plant. $100,000. A. Main, 228 6th St., boro. engr. R. Winthrop, Cleveland, O., consult. engr.

N. C., Mt. Holly—See "Waterworks."

Fla., West Palm Beach—Dec. 27, to vote on $100,000 bonds for storm and sanitary sewers. K. D. Riddle, city mgr.

Mich., Detroit—Plans made 5,530 ft. Six Mile Rd. Sewer, Sect. 4, brick or monolithic concrete, incl. 4,509 ft. 10 ft. 6 in. cylinder and balance varying in size to 30 in. cylinder; also 4,241 ft. Lateral 3572, 1,201 ft. Lateral 3574, and 1,350 ft. Lateral 3575, vitr. crock, 12-20 in. pipe. C. W. Hubbell, city engr.

Mich., Springwells—Making plans and soon receives bids for sewerage system. Will be contracted for in sections as follows, pumping station, incl. electrically driven centrifugal pumps; sewage treatment plant, settling tanks and sludge beds; 13,000 ft. sanitary trunk sewer, 5 ft. 6 in. to 6 ft. diam.; 460 ft. combined trunk sewer with outlet across Michigan Central R.R., 13 ft. 6 in. x 18 ft., also 3,000 ft. in open cut; 9,200 ft. cylindrical sect. in tunnel or open cut, 6 to 10 ft. diam.; brick or concrete. $1,250,000. A. Roth, village engr. C. W. Hubbell, 2348 Penobscot Bldg., Detroit, consult. engr. Noted Oct. 20.

Ill., Cairo — Bd. Local Impvts. making plans sanitary sewerage system in 38th St. Dist., 10-54 in. vitr. tile and concrete pipe. $110,000. G. F. Dewey, City Hall, engr.

Okla. Ramona — Having preliminary plans prepared 3 mi. sewerage system and disposal plant. $40,000. V. V. Long & Co., Ramona, engrs.

Ont., Toronto—See "Streets and Roads."

BIDS DESIRED

N. Y., Brooklyn—Dec. 21, by E. Riegelmann, boro pres., Boro Hall, sewers in 83rd St. between 21st Ave. and Bay Parkway and Bay Parkway between 83rd and 85th Sts., Maple St. between Troy and New York Ave., Ave S between East 18th and East 19th Sts., Ave U between Van Sicklen and West 5th Sts., Riverdale Ave. from Williams to Alabama Aves.

N. Y., Long Island City—Dec. 20, by M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., sewer in Grand St. from Willow to Clermont Aves., 2nd Ward, Wierfield St. from Wyckoff Ave. to Brooklyn Boro line, 2nd Ward, Jefferson Ave. from Wyckoff to Cypress Aves., 2nd Ward, Cooper Ave. from Irving to Wyckoff Aves., 2nd Ward, Metropolitan Ave. from Fresh Pond Rd. to Prospect St. and Vincent St. from Metropolitan Ave. to Bleecker St., 2nd Ward, 163rd St. (Kendall Pl.-23rd St.) from 43rd Ave. (California Ave.-Cypres Ave.) to Canford Ave., 3rd Ward, Haydock (20th) St. from California (Cypress) Ave. to Sanford Ave., Sanford Ave. from Gerold (19th) St. to Haydock (20th) St. and Haydock (20th) St. from Sanford Ave. to Lucerne Pl., 3rd Ward, 86th Ave. (Windom St.) from Forest Parkway to point about 275 ft. east of Forest Parkway, 4th Ward, temporary dry weather flow sewer in Junction Ave. from Maurice to Corona Aves., sewer in Corona Ave. from Junction to Toledo Aves. with temporary connection for dry weather flow only at Junction Ave., 2nd Ward, reconstruction outlet at Far Rockaway Disposal Plant, 5th Ward.

Pa., Phila.—Dec. 19, by F. H. Caven, dir. pub. wks., new 5 ft. concrete sewer in Tulip St. between Somerset St. and Lehigh Ave., also reconstructing pavement on above street. $50,000. C. Frommer, City Hall, engr.

Ind., Brazil—Dec. 21, by F. K. DeArmey, city clk., sewage treatment plant. G. A. Sheehan, city engr.; adv. this issue.

Mich., Lansing—Dec. 19, at office J. A. Parsons, city clk., 5,000 ft. sewers; adv. this issue.

Ill., Belleville—Dec. 21, 25,000 ft. 12 in. vitr. tile sewers, 740 cu.yd. excav., etc. $28,000. C. A. Henzelman, Belleville, engr.

Wis., Appleton—Jan. 4, by E. L. Williams, city clk., 1,610 ft. 48-84 in. rein.-con. trunk sewers in Atlantic St. and Belair Park, $45,000 to $50,000. O. Weissgerber, City Hall, engr.

Minn., Winona—Dec. 27, 385 ft. 18 in. c.i. mains, 33,651 ft. 8-18 in. vitr. clay pipe, 107 brick manholes, etc. $60,000. Former bids rejected. E. E. Chadwick, city engr. Noted Nov. 17.

Mo., Marceline—Jan. 2, for 65,000 lin.ft. 8-12 in. vitr. sewers and 2 rein.-con. reverse flow Imhoff tanks, etc. Benham & Mullergren, Firestone Bldg., Kansas City, engrs. Noted Oct. 6.

CONTRACTS AWARDED

N. J., Wallington—Passaic Valley Sewerage Comrs., 128 Market St., Newark, superstructure for Wallington pumping station, part of Sect. 19, to H. S. Jones Bldg. Co., Inc., 280 Madison Ave., New York, $54,200.

N. C., Rocky Mount—Sanitary sewers to L. D. Harper, Rocky Mount, $30,000. Noted Oct. 13.

Fla., West Palm Beach—Clay sewer, to J. C. Mishler, c/o M. D. Carmichael, West Palm Beach, $60,337. Noted Nov. 17.

Ill., Urbana—For 8-12 in. glazed tile sewers in Coler and Busey Aves., Dist. 18, to Liedeman Bros., Urbana, $28,000. Noted Dec. 1.

Ia., Dubuque — Globe Portland Cement Co., seven or eight 1 and 2 story buildings, cement storage tanks, storage pits, trackage, etc., to H. C. Struchen, 405 Dakota Bldg., St. Paul, Minn., $2,000,000. *Item should be listed under Industrial Works.*

Neb. Omaha—For 17,490 ft. vitr. clay sewers between 38th and 42nd Sts., from Burlington and Missouri R.R. to X St., to H. J. Peterson, 213 Farnum Bldg., $31,945.

Neb., Omaha — Chicago Rock Island & Pacific R.R., 1416 Dodge, 1296 ft. 72 in. rein.-con. sewers, etc., from 16th and Mason Sts. to 19th and Pierce Sts., to J. J. Hanighan, 617 South 14th St., $26,500.

Col., Boulder—For 12-42 in. storm sewers in Dist. 2, concrete pipe above 24 in., to Mitchell & Albertson, Boulder, $92,329; storm sewer in Dist. 3, to F. Dobson, 1444 Lafayette St., Denver, $12,012.

Utah, Salt Lake City—For 6 mi. 8-1 in. vitr. sanitary sewers, to J. O'Connor, 10th St. N., $100,383. Noted Nov. 17.

Waste Disposal

PROPOSED WORK

Wis., Sheboygan—Making plans 60 x 90 ft. brick and steel addition to present incinerator and additional garbage disposal apparatus. $30,000. C. U. Boley, City Hall, engr.

Bridges

PROPOSED WORK

Conn., Unionville—Town of Farmington plans to replace present wooden bridge over Farmington River, here, with steel bridge. $25,000. Engineer not selected.

North Carolina—State Hy. Comn., Raleigh plans rein.-con. bridge over Richardsons Creek, State Project 694, Union Co. $30,000. C. M. Upham, state highway engr.

Fla., Miami—Bakers Hanlover D. D., c/o J. C. Baile, chn., 1304 South River Dr., having plans prepared 200 ft. steel bridge, 3 arches, over channel. $50,000. H. Crabtree, 13th St. and Ave. S, engr.

Alabama—State Hy. Dept., Montgomery, had plans prepared and soon takes bids one 180 ft. 9 in. and two 102 ft. 6 in. steel spans, concrete floor, 18 ft. roadway, on old Louisville & Nashville R.R. piers, on Mulberry Fork of Warrior River. Piers to be repaired by State Highway forces. W. S. Keller, State Highway Engr.

La., New Orleans—Appalachian Corp. Inc. of Louisiana, 412 Gravier St., having plans prepared for overhead bridge, 1,425 ft. long, 26 ft. high, 11 ft. wide, steel on concrete foundation, extending from warehouse on South Front St. to dock on Robin St. $50,000. W. C. Keenan, Standard Theatre Bldg., archt.

Mo., Kansas City—Making plans 480 ft. concrete and steel bridge with 5 spans, 40 ft. roadway, over Brush Creek from Swope Parkway and Benton Blvd. $200,000. Harrington, Howard & Ash, Orear Leslie Bldg., engrs.

Tex., Abilene—Taylor Co. making plans 198 ft. bridge over Mulberry Creek on Highway 1, to have 6 concrete deck girder spans, 30 ft. clear span. $27,760. H. E. Elrod Co., Interurban Bldg., Dallas, engrs.

Col., Denver — City and Union Pacific R.R., 16th and Dodge Sts., Omaha, Neb., plan steel and concrete viaduct starting at 26th and Market Sts. and extending ½ mi. across tracks and river. $350,000-$400,000. Engineer not selected.

Cal., Guerneville—Sonoma Co. (Santa Rosa) take bids in March, 3 span steel bridge, concrete approaches, over Russian River, here. $100,000. R. P. Smith, Santa Rosa, engr.

Cal., Sacramento—Supervs. Sacramento Co. opens bids early in 1922, steel bridge near Paintersville, $75,000; steel bridge near Courtland, $150,000. D. Butler, co. engr.

Que., Thurso—J. and G. Black, Ltd., does not plan to build combined bridge and dam. This corrects report in Nov. 24 issue.

BIDS DESIRED

Ga., St. Marys—Dec. 21, by St. Marys Bridge Co., steel draw and 977 lin.ft. trestle across St. Marys River; adv. this issue.

La., Lake Charles—Jan. 10, by W. J. Prater, pres. Police Judy Calcasieu Parish, at office Parish Clerk, Moss Bluff Highway Bridge across Calcasieu River. Terrell-Bartlett Engrs., Calcasieu Bldg., San Antonio, Tex., engrs.; adv. this issue.

Kan., Topeka—Dec. 20, by Shawnee Co., c/o D. A. Graham, clk., Seward Bridge, 110 ft. steel truss; Cross Creek Bridge, 120 ft. steel truss or rainbow arch span; Big Soldier Bridge, 100 ft. steel truss or rainbow arch span. $60,000. A. C. Lagerwall, 1723 Harrison St., co. engr.

Kan., Topeka—Dec. 20, by city, c/o E. Covell, clk., 110 ft. rein.-con. and steel bridge, 30 ft. roadway, two 5 ft. sidewalks, over Creek on Lake St. $25,000. W. Baldry, City Hall, engr.

Cal., Fresno—Dec. 23, by Bd. Supervs. Fresno Co., 7 rein.-con. bridges on Fowler-Laton Rd., 739 cu.yd. concrete, 60,030 lb. reinforcing and 6,020 lin.ft. piling. C. P. Jensen, Cory Bldg., engr.

BIDS RECEIVED

S. D., Yankton — Meridian Highway Bridge Co., opened bids Nov. 29, steel superstructure of bridge, double deck, length incl. approaches 5,820 ft., span length 1,680 ft., over Missouri River, from Amer. Bridge Co., 20 South La Salle St., Chicago, $280,987; Mount Vernon Bridge Co., Mt. Vernon, O., $293,248; Wisconsin Bridge

Bridges (Continued)

& Iron Co., North Milwaukee, Wis., $316,-650. Noted Nov. 24.

Tex., Denton—Denton Co. cpened bids Nov. 22, 240 ft. bridge over Elm Creek on Highway 24, from F. P. McElwrath, Corsicana, $21,985; Austin Bros. Bridge Co., Coombs St., Dallas, $22,339; L. E. Whitham, Wichita Falls, $23,920. Noted Nov. 17.

CONTRACTS AWARDED

W. Va., Morgantown — Monongalia Co., bridge over Cheat River at Ices Ferry, to Independent Bridge Co., May Bldg., Pittsburgh, Pa., $51,240. Noted Nov. 17.

Okla., Muskogee—Muskogee Co., constructing K. O. & G. Bridge Federal Aid Project 51, Sect. A, to Vincinnes Bridge Co., Vincinnes, Ind., $94,069; Frisco Bridge, Federal Aid Project 51-B & 52, to Virginia Bridge & Iron Co., Roanoke, Va., $395,517; Whitefield Bridge, Federal Aid Project 51, Sect. C, to Missouri Valley Bridge & Iron Co., Penn. Ave., Leavenworth, Kan., $133,-470. Noted Oct. 6.

North Carolina—State Hy. Comn., Raleigh, rein.-con. bridges and culverts on State Project 511, Caswell Co., to C. B. Hester, Greensboro, $30,785; State Project 525, Davidson Co., to Austin Bros. Bridge Co., Hurt Bldg., Atlanta, Ga., $37,700. Noted Dec. 1.

Cal., Sacramento—Bd. Supervs. Sacramento Co., steel and concrete bridge over Sacramento River, 1 mi. above Isleton, (556,000 lb. structural steel, to be furnished by county), to Jenkins & Elton, 36th and Y Sts., $118,633.

Dams

PROPOSED WORK

Conn., Windsor—See "Industrial Works."

Wyo., Afton — Oswald Basin Land & Water Co., Idaho Falls, Idaho, had plans prepared dam 65 ft. high at crest line, 55 ft. at spillway level, 900 ft. at base and 100 ft. at top, core wall 24 ft. thick, to impound water of Salt River, near here. $500,-000. F. V. Riley, Idaho Falls, Idaho, engr. Noted May 5.

Wyo., Greybull—Greybull Valley Irrigation Dist., c/o Skovard, Basin, plans earth dam on Sunshine Creek, to impound 50,-000 acre feet of water, and supply canal from Greybull River to reservoir. $800,-000. Will probably mature in spring. J. B. True, Cheyenne, and L. G. Carpenter, 1st Natl. Bank Bldg., Denver, Col. engrs.

Railways

PROPOSED WORK

California—City and San Francisco Co. considering selection of route for extending Municipal Railway system into Sunset Dist. Four routes proposed; Duboce Ave., $2,467,000; Eureka Valley, $1,900,000; Grove St., $1,300,000; Laguna Honda, $914,000. Each of four routes require construction of tunnel. M. M. O'Shaughnessy, city engr.

Ontario—Canadian Pacific Ry., Windsor St., Montreal, Que., plans enlarging yards, incl. new sidings and freight sheds, at Windsor. $150,000. J. A. Irvine, London, div. engr.

Ontario—City of Windsor plans rearrangement of street car tracks on Sandwich St. $100,000. A. Brian, City Hall, engr.

BIDS DESIRED

Ontario — Jan. 9, at office of W. H. Maund, secy.-treas., Temiskaming & Northern Ontario Ry. Comn., North Bay, 70 mi. road from Cochrane to point near New Post, incl. clearing, grubbing, ballasting tracks, rails, stations, water towers, etc. $3,000,000. S. B. Clement, North Bay, ch. engr. Noted Dec. 1.

Excavation and Dredging

PROPOSED WORK

Conn., Hartford—See "Miscellaneous."

Fla., Miami — Bakers Hanlover D. D., c/o J. C. Baile, chn., 1304 South River Dr., having plans prepared digging 200 x 1,400 ft. channel from Atlantic Ocean to Bascayne Bay, 100,000 to 150,000 cu.yd. earth excav. $40,000. H. Crabtree, 12th St. and Ave. S, engr.

Minn., Fairmont—Martin Co. plans ditch in Fairmont and Silver Lake Twps. $200,-000. H. C. Nolte, aud.

Mo., St. Joseph—Buchanan Co. had preliminary plans prepared 5 mi drainage ditch 12 extending from Lake Station to Missouri River and draining 15,000 acres, 500,000 cu.yd. excav. and five 60 ft. bridges. $140,000. Leslie-Barnes Eng. Co., Amer. Natl. Bank Bldg., engrs.

BIDS DESIRED

Miss., Belzoni—Jan. 4, at office Comrs. Belzoni D. D., redredging and cleaning out ditches. C. E. Miller, engr.; adv. this issue.

CONTRACTS AWARDED

Minn., Mantorville—Dodge Co., Ditch 5, 51,750 ft. 8-36 in. tile, 600 lin.ft. of cleanout of outlet, etc., to F. E. Esser, Mankato, $36,134. Noted Nov. 24.

Wyo., Riverton—Riverton Valley D.D., 9 mi. 10-18 in. tile, 45,000 cu.yd. excav., to C. Thompson, Brandis Bldg., Omaha, Neb., $101,572. Noted Aug. 11.

Streets and Roads

PROPOSED WORK

Massachusetts—State Hy. Dept., Boston, plans 11,558 ft. Worcester-Springfield Rd., West Leicester, $91,000, 5,556 ft. Providence Pike, Norwood, $45,000, 19,317 ft. highway, Haverhill and Merrimac, $155,-000, 15,200 ft. Pittsfield-Springfield Rd., Lee, $120,000, 19,810 ft. highway, Erving, $158,480, 7,400 ft. road from Boston to Plymouth, $59,000, 7,300 ft. Plymouth-Sandwich Rd., Plymouth, $59,000, 11,400 ft. Middleboro-Wareham Rd., Wareham and Rochester, $91,000, 13,800 ft. Worcester-Springfield Rd., West Palmer and Monson, $114,000, 34,075 ft. Providence Pike, Walpole, Norfolk and Wrentham, $282,000, all foregoing concrete; 5,795 ft. Hinsdale Rd., Dalton, $34,800, 5,300 ft. Windsor Rd., Dalton, $31,000, 9,310 ft. highway, Lunenburg, $54,000, 34,800 ft. highway and 6 bridges., Winsor, Cummington and Goshen, $243,000, 17,550 ft. highway, Williamstown and New Ashford, $100,000, 22,378 ft. highway, Brimfield, $132,000, 23,354 ft. Mohawk Trail Route, Shelburne, $140,000, 13,400 ft. Uxbridge-Milford Rd., Mendon, $100,000, 18,650 ft. Clinton-Worcester Rd., West Boylston and Sterling, $11,000, 55,927 ft. Newburyport Turnpike, Topsfield, Ipswich and Newbury, $330,000, 20,060 ft., Boston-Lowell Rd., Burlington, $120,000, 16,037 ft. highway, Great Barrington, $96,000, bituminous macadam; 53,225 ft. Westfield-Granby-Monville Rd., Southwick, $26,000, bituminous macadam and gravel; 19,542 ft. Taunton-Boston Rd., Easton, $136,000, concrete and bituminous macadam. A. W. Deane, 413 Statehouse, Boston, engr.

N. J., Jersey City—Had plans prepared and takes bids in February widening and paving, etc., 1,000 ft. Bergen Ave., 2,000 lin.ft. curbing, 5,600 sq.yd. asphalt or concrete. $60,000. C. A. Van Keuren, City Hall, engr.

N. J., Jersey City—Hudson Co. takes bids early in 1922, paving about 4,000 ft. Bergen Turnpike from Gregory Ave. to Hudson Blvd., 40 ft., granite block on concrete. $180,000. F. J. Radigan, Newark Ave., co. engr.

North Carolina—State Hy. Comn., Raleigh, plans clearing, grading and surfacing 13.5 mi. road from Albemarle to Cabarrus Co. line, State Project 685, Stanly Co., $65,000; grading and hard surfacing 4.3 mi. road from end of Project 692 to Bakers Siding, State Project 692, Union Co., $100,000. C. M. Upham, state highway engr.

North Carolina—State Hy. Comn., Raleigh, plans grading, surfacing and bridging 10.1 mi. road from Hendersonville to Buncombe Co. line, State Project 836, Henderson Co., $65,000; grading and surfacing 9.5 mi. from Hanes to Yadkin River, Etate Project 741, Forsyth Co., $50,-000; 5.5 mi. from end of Federal Aid Project 136, via Mocksville, to Federal Aid Project 85, State Project 731, Davie Co., $35,000; 10.3 mi. from Reynolds to Yadkin River, State Project 742, Forsyth Co., $50,-000; 5 mi. from Hendersonville to Horseshoe, State Project 832, Henderson Co., $30,000; clearing, grading and surfacing 11.1 mi. from Ogburn to Stokes Co. line toward Walnut Cove, State Project 743, Forsyth Co., $55,000; 12.4 mi. from Newland to Burke Co. line, State Project 803, Avery Co., $75,000; grading and hard-surfacing 2 mi. from Belews Creek to Guilford Co. line, State Project 744, Forsyth Co., $50,000; clearing, grading, bridging and surfacing 12.6 mi. from Jefferson to Alleghany Co. line, State Project 712, Ashe Co., $75,000; 15.1 mi. from Ashe Co. line to Sparta, State Project 702, Alleghany Co., $85,000. C. M. Upham, state highway engr.

S. C., Camden — Mayor opens bids in about six weeks hard surfacing various streets, $500,000. Carolina Eng. Co., Wilmington, N. C., engrs.

Fla., Inverness—Citrus Co. plans paving 10 mi. various roads, 16 ft. $180,000. E. V. Camp, Macon, Ga., engr.

Fla., Lake Wales—Voted $600,000 bonds paving 13 mi. various streets, 9 to 24 ft., probably brick or asphalt block. J. W. Turner, Raymondo Bldg., Lakeland, engr. Noted Oct. 6.

Fla., St. Petersburg—Plans paving 3 mi. various streets, 16 to 36 ft., 50,000 sq.yd. vitr. brick or asphalt block. $150,000. E. C. Garvin, City Hall, engr.

Fla., West Palm Beach—Dec. 27, to vote on $100,000 bonds for paving streets and $25,000 bonds for sidewalks. K. D. Riddle, city mgr.

O., Xenia—Making plans paving 2 mi. Church St. and several others, 24-30 ft., brick or sheet asphalt. $130,000. Address C. Zell, city mgr.

Mich., Sturgis—Takes bids early in 1922, 5 mi. concrete or asphalt pavement. R. D. Ballew, city mgr.

Ill., Joliet—Making plans paving various streets, asphalt on concrete. $52,084. R. S. Calkins, Joliet Natl. Bank, city engr.

Wis., Salem — Kenosha Co. (Kenosha), voted $165,000 bonds improving 5½ mi. Geneva Rd., 18 ft., concrete. J. F. Herzog, Kenosha, comr.

Minn., Minneapolis—Hennepin Co. plans to grade and gravel surface various roads. $600,000. E. E. Terrell, co. engr.

Neb., Omaha—J. A. Bruce, city engr., takes bids in January or February, improving Military Ave. from 52nd to 72nd Sts., 13th St. from Missouri Ave. to county line, 16th St. from Douglas St. to Carter Lake Blvd., incl. 2½ mi. asphalt resurfacing, 1½ mi. repaving and 1½ mi. new paving, involving 40,000 sq.yd. vitr. brick, 60,-000 sq.yd. asphalt resurfacing, 7,000 cu.yd. earth excav., 22,000 sq.yd. concrete base. $300,000.

Neb., Wakefield—Probably open bids in January, 18,000 sq.yd. vitr. brick paving. $80,000.

Missouri — State Hy. Dept., Jefferson City, plans graveling 9.02 mi. Federal Aid Project 183, 16 ft., Dunklin Co. $121,000. W. S. Murray, Citizens Bank Bldg., Sikeston, engr.

Mo., St. Joseph—Bd. Pub. Wks. making plans curbing, guttering and paving King Hill Ave. from Alabama to Pawnee Sts., asphalt on concrete. $27,000. W. K. Seitz, City Hall, engr.

Mo., St. Joseph—Buchanan Co. had plans prepared and soon takes bids paving 14 mi. Dekalb Rd., 500 cu.yd. asphaltic binder and 91,218 sq.yd. asphaltic concrete, cost $121,522, or 91,218 sq.yd. reconstructed base course and 91,218 sq.yd. bituminous macadam, $123,144. J. D. Mohler, Court House, engr. Noted Nov. 24.

Tex., Brenham—Attorney Generals Dept., Austin, approved $40,000 bonds, paving streets in business section. G. A. Bracher, Brenham, consult. engr.

Tex. Edinburg. —Hidalgo Co. voted $1,250,000 bonds improving State Highway and lateral county roads. P. S. Devine, Pharr, co. engr. Noted Nov. 17.

Okla., Ardmore—Carter Co. plans paving various roads bituminous concrete. $500,-000. R. J. Edwards, Ardmore, co. engr.

Cal., San Luis Obispo—Supervs. San Luis Obispo Co. having plans prepared and take bids about January grading 13½ mi. Arroyo Grande-Huasna Rd. Plan to surface road when grading is completed. W. Burch, Lowe Bldg., engr.

Cal., Santa Rosa—Bd. Supervs. Sonoma Co. soon takes bids grading 3 mi. Guerneville-Jenner Highway, Sect. B, $40,000, 2 mi. Pocket Canyon Rd., 5th Rd. Dist., $20,-000; takes bids in February grading 35 mi. road from Jenner to Mendocino Co. line highway, $140,000; takes bids after March grading 19 mi. Valley-Ford-Freestone to Guerneville Jenner Highway, $75,-000. R. P. Smith, Santa Rosa, engr.

Ontario — Dept. Provincial Highways, Parliament Bldgs., Toronto, takes bids early in spring, concrete paving 6 mi. Talbot Rd. from Essex to Maidstone. $150,000. J. J. Dewhirst, Essex, engr.

Ontario — Dept. Provincial Highways, Parliament Bldgs., Toronto, plans 40 mi. of 18 in. shoulders, bituminous penetration macadam, on Toronto-Hamilton Highway. $200,000. G. Hogarth, Parliament Bldgs., Toronto, ch. engr.

Ont., Toronto—Plans concrete sidewalks on Bowmore Rd., $2,475; concrete curbs on Godfrey Ave. and Small St., $3,771; 17,000 sq.yd. asphalt pavement on concrete base, concrete curbs and gutters, on Fairmont Crescent, Wrenson Rd., Small St., Godfrey and Pullen Aves., $91,573; asphalt surfacing Dufferin St., $15,397. R. C. Harris, city engr.

Ont., Toronto—Plans widening Bloor St. from Sherbourne St. to Spadina Ave., from 66 to 85 or 86 ft., incl. new pavements, sidewalks and storm sewers. $1,250,000. R. C. Harris, city engr.

Streets and Roads (Continued)

BIDS DESIRED

N. Y., New York—Dec. 19, by H. H. Curran, pres. Manhattan Boro, widening and repaving roadway of 181st St., curb to rail, from St. Nicholas Ave. to Bway., asphalt block on concrete.

N. Y., New York—Dec. 22, by Park Bd. at office Dept. Parks, Municipal Bldg., paving portions of drives in Central Park, sheet asphalt on concrete. F. D. Gallatin, pres.

N. Y., S. I. St. George—Dec. 19, by C. D. Van Name, pres. Richmond Boro, Boro Hall, paving Great Kills Rd. from Amboy Rd. to Southfield Blvd., bituminous macadam to width 18 ft. centrally located.

N. Y., S. I. Stapleton—Dec. 22, by C. D. Van Name, pres. Richmond Boro, Boro Hall, Staten Island, paving roadway in rear of new bulkhead extending from southerly end of Simonson Ave. to Arrietta St., here, second-hand granite blocks on sand bed.

Pa., Pittsburgh—Receiving bids grading, paving and curbing Baker St. from Morningside Ave. to Butler St., 17,660 cu.yd. excav., 5,660 sq.yd. block stone pavement, 4,285 ft. concrete curb ,etc., $40,500; grading, paving, repairing and curbing Broad St. from North Highland to Hamilton Aves., 8,339 q.yd. sheet asphalt resurfacing, 4,206 ft. concrete curb, 18,997 sq.ft. concrete sidewalks, etc. $37,000. C. M. Reppert, city engr.

W. Va., Moundsville—Dec. 30, by J. E. Chase, clk. Marshall Co., constructing .6 mi. Ramp Hollow Rd. and 2.33 mi. Waynesburg Rd.

S. C., Barnwell—Dec. 22, by Comrs. Barnwell Co., sand clay surfacing 9.74 mi. Lees-Williston Rd., between Bamberg Co. line and Elko, 4,318 cu.yd. excav. and 23,979 cu.yd. sand clay surfacing. J. S. Still, superv.

S. C., Charleston—Dec. 20, at office Sanitary & Drainage Comn., 39 Broad St., sand clay surfacing 4.54 mi. Mountains to Sea Highway between fork at Goose Creek and Dorchester Co. line, 23,750 cu.yd. excav., 1,500 cu.yd. strippings on clay pits, 11,180 cu.yd. sand clay surfacing. J. W. Martin, 39 Broad St., engr.

Florida—Jan 4, by State Rd. Dept., Tallahassee, hard surfacing with bituminous macadam, cement concrete, bituminous concrete, sheet asphalt, rock asphalt or cement grouted brick, 5.7 mi. Rd. 1, through McClenny, Project 21, Baker Co., $171,000; 8.9 mi. from Columbia Co. line east on Rd. 1, Project 22, Baker Co., $276,000; 15.4 mi. Sect. Rd. 1, east of Lake City to Baldwin, Project 11, Duval, Nassau and Baker Counties, $462,000; 12.8 mi. from end of brick road west of Jacksonville to Baldwin, Project 23, $384,000, all 16 ft. J. A. Mortland, state bridge engr. Noted Nov. 17.

Florida—Jan. 5, by State Rd. Dept., Tallahassee, hard surfacing with bituminous macadam, cement concrete, bituminous concrete, sheet asphalt, rock asphalt or cement grouted brick, 12.8 mi. road from Sisco to Volusia Co. line, (excepting Crescent City), Project 18, Rd. 3, Putnam Co., $384,000; 12.6 mi. along Rd. 2 from Burnetts Lake to Gainesville, Project 33, Alachua Co., $378,000; 8.6 mi. along Rd. 2 from Plymouth to Mt. Dora, Project 13, Orange Co., $258,000; 191,960 sq.yd. shell base along Rd. 3, from De Leon Springs to Putnam Co. line, Volusia Co., $130,000. J. A. Mortland, state bridge engr.

Fla., Tampa—Dec. 20, 12,000 yd. asphalt block paving and 2,600 ft. granite curbing. R. D. Martin, city engr.

Kentucky—Dec. 21, by State Hy. Dept., Frankfort, shaping and surfacing 2.3 mi. Lauisville-Paducah Rd., from east corporate limits of Bradenburg, Mead Co., with waterbound macadam, waterbound macadam surface treated or bituminous macadam penetration type, 123 sta. crowning, shaping and ditching, waterbound macadam involves 10,977 ton crushed limestone, waterbound macadam surface treated 10,977 ton crushed limestone, 4391 gal. prime coat, $7,319 gal. cold oil or med, tar spec., 275 ton stone chips, bituminous macadam penetration type, 10,293 ton crushed limestone, 823 ton stone chips, 49,400 gal. bituminous material; 3.6 mi. Lexington-Winchester Rd. from Chilesburg Rd., Fayette Co., rock asphalt, bituminous concrete topeka mix or rein.-con., 5,306 cu.yd. earth and 251 cu.yd. borrow excav., 37,856 sq.yd. scarifying and reshaping, 129 cu.yd. concrete, 720 cu.yd. macadam excav., 4,141 ton crushed limestone shoulders, rock asphalt involves 2,912 ton rock asphalt, 15,972 ton crushed limestone, bituminous concrete topeka mix 15,972 ton crushed limestone, 37,856 sq.yd. bituminous concrete, rein.-con. 37,856 sq.yd. rein.-con.; 8 mi. Greenup-Ashland Rd. from Boyd Co. line, Greenup Co., rein.-con., bituminous macadam penetration type, brick on slag or limestone base, 37,355 cu.yd. earth, 777 cu.yd. rock, 25,321 cu.yd. borrow, 1,200 cu.yd. macadam and 1,636 cu.yd. channel excav., 882 cu.yd. concrete, 81,893 lb. reinforcing, 2,525 sq.yd. brick hillside paving, rein.-con. involves 79,631 sq.yd. rein.-con. paving, 1,105 ton crushed limestone or 966 ton crushed slag, bituminous macadam penetration type 179,177 gal. bituminous material, 2,986 ton stone chips, 41,993 ton crushed limestone or 36,741 ton crushed slag, brick 32,801 ton crushed limestone or 28,697 ton crushed slag, 72,433 sq.yd. brick paving; Ashland-Greenup Rd., from northwest city limits of Ashland to Greenup Co. line, Boyd Co., brick, bituminous macadam penetration type or rein.-con., 3,039 cu.yd. excav., brick involves 5,000 sq.yd. brick, 2,187 ton crushed limestone or 1,914 ton crushed slag, bituminous macadam penetration type, 2,795 ton crushed limestone or 2,446 ton crushed slag, 197 ton stone chips, 11,843 gal. bituminous material, rein.-con., 5,264 sq.yd. rein.-con.; 2.6 mi. Paducah-Mayfield Rd. from Blandville Rd., McCracken Co., rock asphalt, bituminous macadam penetration type or rein.-con., 5,065 cu.yd. excav., 4,525 sq.yd. scarifying and reshaping, 2,222 cu.yd. bank gravel shoulders, rock asphalt involves 2,155 ton rock asphalt, 3,938 ton crushed limestone, 6,527 cu.yd. bank gravel base, bituminous macadam penetration type, 3,500 ton crushed limestone, 6,527 cu.yd. bank gravel base, 68,000 gal. bituminous material, 1,050 ton stone chips, rein.-con., 28,000 sq.yd. rein.-con.; shaping and grading 7.8 mi. Mayo Trail from Laurel Creek, Boyd Co., 40,411 cu.yd. earth, 40,874 cu.yd. rock and 4,586 cu.yd. borrow excav., 1,590 lin.ft. 18-24 in. D. S. vitr. pipe, 1,365 cu.yd. concrete, 78,444 lb. reinforcing. J. S. Boggs, state highway engr.

Ia., Algona—Dec. 27, Auditor Kossuth Co., paving primary road from here east to Hancock Co. line; gravel surfacing primary road from Burt north to Gerled.

Ia., Jefferson—Dec. 21, Auditor Greene Co., grading 8 mi. Primary Rd. Project 153, from Dana north to Webster Co. line, 66,705 cu.yd. earth excav., 47,690 ft. 6 in. tile.

Ia., Missouri Valley—Dec. 22, by J. F. Clinkenbeard, clk., grading and paving Dist. 1, (State Aid) 10,000 cu.yd. excav., 11,072 sq.yd. paving; Dist. 2, 6,997 cu.yd. excav., 17,906 ft. curb and gutter, 57,985.5 sq.yd. paving; Dist. 3 1,420 cu.yd. excav., 10,104.7 sq.yd. paving. C. L. Huff, Logan, engr. Noted Nov. 24.

Ia., Sioux City—Dec. 20, Auditor Woodbury Co., grading and paving 7.02 mi. primary Rd. from Salix north toward here, 5.7 mi. Sioux City-Smithland Rd., southeast from here, Federal Aid Project 119; 0.92 mi. Primary Rd. Project 187, through Moville, 9,770 sq.yd. paving and 3,523 cu.yd. excav., together with 12,770 sq.yd. paving and 4,505 cu.yd. excav., local Moville work.

Tex., El Paso—Dec. 20, by E. B. McClintock, judge El Paso Co., grading, paving and draining 5.53 mi. Highway 33 from Socorro to San Elizario, 29,800 cu.yd. borrow and 1,770 cu.yd. roadway excav., 172.4 cu.yd. concrete, 59,700 sq.yd. concrete or bituminous concrete pavement, 10,620 lb. reinforcing. $176,800 incl. 10% for engineering nd contingencies. L. A. White, co. engr.

Tex., Johnson City—Dec. 23, by W. Malting, judge Blanco Co., grading and bridging 5.41 mi. State Highway 20 A, Austin-Fredericksburg Rd., 31,382 cu.yd. roadway, 4,215 cu.yd. loose and 1,703 cu.yd. solid rock excav., 263.18 cu.yd. concrete, 22,384 lb. reinforcing, $27,850; 6.72 mi. State Highway 46, Federal Aid Project 244-A, 15 acres clearing, 23,075 cu.yd. borrow, 28,999 cu.yd. roadway, 3,744 cu.yd. loose and 624 cu.yd. solid rock excav., 667.85 cu.yd. concrete, 988 sq.yd. concrete pavement, 46,550 lb. reinforcing, $44,559; 7.5 mi. State Highway 46, 16 acres clearing, 26,647 cu. yd. borrow, 57,327 cu.yd. roadway and 440 cu.yd. solid and loose rock excav., 723.5 cu.yd. concrete 451 sq.yd. concrete pavement, 46,751 lb. reinforcing, $51,610. W. C. Yeager Blanco, co. engr.

Cal., Fresno—Dec. 23, by Bd. Supervs. Fresno Co., paving 3.6 mi. Sanger-Centerville, Rd., Spec. 1, 5,300 cu.yd. excav. and 314,995 sq.ft. 5 in. asphaltic concrete paving, Type A top, Spec. 2, same as 1 except Warrenite top; 4.3 mi. Fowler-Laton Rd., Spec. 1, 8,600 cu.yd. excav., 5,530 cu.yd. 5 in. concrete base, 360,920 sq.ft. 1½ in. asphalt top, Type A, Spec. 2, same as 1 except Warrenite top, Spec. 3, 5 in. asphaltic concrete paving, Type A top, Spec. 4, same as 3 except Warrenite top; 4.1 mi. Centerville-Dunlap Rd., macadam, 8,050 cu.yd. excav., 10,600 ton gravel. C. P. Jensen, Cory Bldg., engr.

Cal., Oakland—Dec. 22, by City Council, extending Skyline Blvd., 3 mi. to Redwood Park, 54,385 cu.yd. excav. and 400 lin.ft. 10 in. vitr. pipe conduit. G. Mattis, city engr.

Cal., San Luis Obispo—Bd. Supervs. San Luis Obispo Co. receiving bids cement sidewalks, 4 in. thick, 5 ft. wide, portions of Main and 5th Sts., in Rd. Impvt. Dist. 2; 3rd, 4th, 5th, 6th and 7th Sts., in town of Morro, Impvt. Dist. 3. $38,500. W. Burch, Lowe Bldg., engr.

Cal., Stockton—Dec. 20, grading, curbing, guttering, surfacing and laying sidewalks on East St. from Main to Fremont Sts., 3,029 lin.ft. curb and gutter, 10,282 sq.ft. sidewalk, 86,808 sq.ft. 2½ in. cement gravel base with 4½ in. asphaltic concrete wearing surface. W. B. Hogan, city engr.

Cal., Stockton—Jan. 3, grading, curbing, guttering, surfacing and laying sidewalks on various streets in City Park and Lakeside Terraces, 6,072 cu.yd. excav., 10,528.95 lin. ft. curb and gutter, 51,125 sq.ft. sidewalk, 174,159 sq.ft. 4 in. cement gravel base with 2 in. asphaltic macadam wearing surface; in Lake Park Addition, 8,764 cu.yd. excav., 16,124 lin.ft. curb and gutter, 76,655 sq.ft. sidewalks, 293,146 sq.ft. 4 in. gravel base with 2 in. macadam wearing surface. W. B. Hogan, city engr.

BIDS RECEIVED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro., Queens Subway Bldg., opened bids Dec. 12, paving (1) Decatur St., grading and laying gutters where necessary on (2) 3rd St., grading sidewalk space and laying sidewalks on (3) westerly side of 130th St., repaving (4) Kingsland Ave., (5) Jamaica Ave. (Hempstead and Jamaica Turnpike), etc., from Sicilian Asphalt Paving Co., 41 Park Row, New York (1) $10,893, (4) $11,357; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, (1) $11,217, (4) $11,095, (5) $167,514; Cleveland Trinidad Paving Co., Flushing (1) $12,487, (4) $10,582, (5) $189,735; Contractors Service Corp., 228 Jackson Ave. (2) $23,428; Daley Bros., (2) $23,547; Welsh Bros. Contg. Co., 14 Queens St., Astoria, (2) $23,654; C. Kurth, 9519 126th St., Richmond Hill, (3) $1,358; Peace Bros., Inc., 20 Main St., Flushing, (3) $1,421; Kennedy & Smith, Inc., 93 Amity St., Flushing, (3) $1.692; W. P. McDonald Constr. Co., 618 Union St., Brooklyn, (5) $180,305. Noted Dec. 8.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Dec. 6, widening and repaving (1) 60th St., repaving (2) East 61st St., (3) Bleecker St., (4) East 52nd St., (5) 69th St., (6) East 76th St., from Interboro Asphalt Co., 2306 Creston Ave., (1) $12,702, (3) $3,615 (5) $11,814; Brusstar Constr. Co., Inc., Harlem River and 150th St., (1) $12,742, (2) $10,794, (3) $3,603, (4) $24,201, (5) $11,814, (6) $6,281; C. D. Beckwith, Inc., 301 West 108th St., (1) $14,165, (2) $11,809, (3) $3,976; J. E. Gaffney, 438 East 91st St., (2) $10,384, (4) $23,450, (6) $6,091; Asphalt Constr. Co., 2197 Madison Ave., (4) $24,859, (5) $13,340, (6) $6,387. Noted Dec. 1.

N. J., Woodbury—Bd. Freeholders Gloucester Co. opened bids Dec. 1, improving Sect. 1, Mantua-Glassboro Rd., (1) 9,526 cu.yd. excav. without classification, (2) 29,105 sq.yd. 1 course reinforced cement concrete pavement, (3) 1,025 lin.ft. 12 in. vitr. clay pipe, (4) 14,144 sq.yd. gravel shoulders, etc. from Empire Constr. Co., 13th and Walnut Sts., Phila., (1) $1.0101, (2) $2.52525, (3) $1.554 (4) $0.3885, total $90,845; B. Foster Co., 20th and Venango Sts., Phila., (1) $1.0348, (2) $2.587, (3) $1.592, (4) $0.398, total $93,066; J. F. Burke Co., 309 Park Ave., Plainfield, (1) $1.04572, (2) $2.6148, (3) $1.6088, (4) 0.4022, total $94,048. Noted Nov. 17.

Fla., Tampa—Grading and paving with asphalt block, 1½ mi. Sanchez, Delaware, Horatio and Brevard Sts., 8,115 sq.yd. asphalt block, 3,560 lin.ft. concrete curbing, from W. L. Harwell, 721 South Orleans Ave., $2.30 to $2.47 per sq.yd. and $0.70 per ft.; Cone Bros., 6th Ave. and 16th St., $2.24 to $2.50 and $0.70; J. G. Yeats, Port Tampa City, $2.45 to $2.60 and $0.70.

Louisianna—State Highway Dept., graveling Ruston-Jonesboro and Ruston-Homer Highways, Lincoln Parish, from S. D. Carr Constr. Co., Leesville, $142,355; Alexandria Constr. Co., Alexandria, $155,993; N. M. George Constr. Co., Shreveport, $157,873.

Minnesota—State Hy. Dept., St. Paul, grading State Project 65-21 and 8-26, Federal Aid Project 248, Clearwater Co., 237,000 cu.yd. excav., from Winston Bros. Co., 801 Globe Bldg., Minneapolis, $93,464, culverts; Schmitz & Mayer, Frazee, $20,089; State Project 7-25, Federal Aid Project 247.

Streets and Roads (Continued)

Blue Earth Co., 48,000 cu.yd. excav., J. Brown, Madison Lake, $14,501, culverts: Sublette & Dwyer, 1930 3d Ave., S., Minneapolis, $4,728; State Project 28-23, Federal Aid Project 246, Pope and Stearns Counties, 157,000 cu.yd. excav., Jorgenson Constr. Co., Summit, S. D., $44,186, culverts: Morris Constr. Co., Morris, $13,724; State Project 9-25, Federal Aid Project 244, Fillmore Co., 145,000 cu.yd. excav., A. Guthrie & Co., Inc., 366 Jackson St., St. Paul, $52,575. Noted Nov. 24.

Missouri—State Hy. Dept., at div. office Bloomfield, opened bids Nov. 22, 8.976 mi. road from Cairo to Poplar Bluff, Federal Aid Project 179, Stoddard Co., (1) 11,503 cu.yd. earth excav., (2) 37,432 cu.yd. borrow, (3) 44,280 sq.yd. Specification B gravel pavement, etc. from N. Davis, Sikeston, (1) $0.225, (2) $0.225, (3) $0.50, total, $59,811; M. E. Gillioz, Monett, (1) $0.24, (2) $0.24, (3) $0.44, $60,811; J. W. Hoffman & Co., Kansas City, (1) $0.21, (2) $0.21, (3) $0.60, $67,310. Noted June 30.

Tex., Del Rio — Val Verde Co. opened bids Dec. 6, grading and surfacing 4.3 mi. State Highway 12, from Rice & Winder, 1101 West 22nd St., Austin, $63,735; Cook & Arrington, Crockett, $70,689; S. M. Bush, San Antonio, $73,000. Noted Nov. 24.

Tex., Denton—Denton Co. opened bids Nov. 22, surfacing 8.5 mi. State Highway 24, Denton-Sherman Rd., 9,884 sq. yd. concrete pavement, 2,470 cu.yd. sand, from Denton Constr. Co., Denton, $34,340; F. P. McElwrath, Corsicana, $34,343; Tibbetts Constr. Co., Box 179, Mineral Wells, $35,847. Noted Nov. 17.

Tex., Eastland — Eastland Co. opened bids Dec. 1, grading and surfacing (a) crushed rock and asphaltic concrete pavement on sledged stone, (b) 3 in. brick on 6 in. concrete, (c) 3 in. brick on macadam, (d) plain concrete, (e) rein.-con., (f) 2 in. bitulithic on 6 in. concrete, from Smith Bros., Crockett, (a) $283,749, (b) $401,351, (c) $396,152, (d) $366,306, (e) $382,916, (f) $340,382; Harris & Powell, De Leon, (a) $344,049, (b) $447,338, (c) $421,134, (d) $448,371, (e) $467,320, (f) $433,382; McKenzie Constr. Co., 606 Bedell Bldg., San Antonio, (b) $440,878, (c) $436,595, (d) $353,837. Noted Nov. 24.

Utah, Salt Lake City—Concrete curbing and guttering 53,405 ft., Dist. 24, from 3rd to 11th Aves., and from H to N Sts., from Strange & Vallandingham, 607 Utah Savings Bank, $180,451; Western Eng. & Contg. Co., Templeton Bldg., $184,642; J. L. Griffith Co., 2139 South 10th St. E, $192,834. Noted Nov. 24.

Cal., Los Angeles—Paving, curbing and sewers Eaglerock Ave., 106,770 sq.ft. 6 in. concrete, 716 lin.ft. cement curbing, 8,119 sq.ft. cement sidewalk, from Fairchild-Gilmore-Wilton Co., Pacific Electric Bldg., $40,410; G. R. Curtis, 2440 East 26th St., $41,936. Noted Nov. 24.

CONTRACTS AWARDED

North Carolina—State Hy. Comn., Raleigh, clearing, grading and topsoiling 14.85 mi. State Project 511, Caswell Co., to White & Simpson, Chatham, Va., $36,663; grading and topeka paving on 5 in. concrete, 10.24 mi. State Project 525, Davidson Co., to Elliott & Sons and R. E. Boggs, Spartanburg, S. C., $292,080; grading, bridging and topeka paving on 5 in. concrete, 11.7 mi. State Project 532, Guilford Co., to Elliott-Sholes Co., Durham, $350,943; clearing, grading and topsoiling 10.89 mi. State Project 501, Alamance Co., to W. Shook, Liberty, $19,317, rein.-con. bridges and culverts on above to Hanford Bros., Burlington, $5,920; 54,730 sq.yd. topeka paving on 5 in. concrete, State Project 504, Alamance Co., to Elliott-Sholes Co., Durham, $140,115. Noted Dec. 1.

N. C., Gastonia—Gaston Co., surfacing 5 mi. highway, to Simmons Constr. Co., Charlotte, asphaltic concrete at $1.07, reconstructed base $0.08, new stone used in reconstructing base $3.35 per ton, total $49,454. Noted Nov. 17.

N. C., Rocky Mount — Paving various streets to R. G. Lassiter & Co., Commercial Bank Bldg., Charlotte, $275,000. Noted Oct. 13.

Fla., Cedar Keys—Levy Co., paving 16 mi. various roads, shell and rock; also 4 small bridges and culverts, to Mickler & McLeod, 1st Natl. Bank Bldg., Tampa, $87,625.

Fla., Tampa—Paving ¾ mi. Elliott St., 10,900 sq.yd. asphalt block, 1,000 cu.yd. native lime rock foundation, to Cone Bros., 6th Ave. and 16th St., $3.59 per sq.yd.

Ohio—Dept. Highways and Pub. Wks., Columbus, grading, bridging, culverts and paving 1.58 mi. Youngstown-East Liverpool Rd., Columbiana Co., brick, to Cavanaugh-De Niro Co., Youngstown, $62,297. Former contract rescinded. Noted Dec. 1.

O., Canton — Comrs. Stark Co., paving 1.69 mi. Canton-Canal Fulton Rd., brick with slag and asphalt filter, to McCoy & Garaux, 317 Clark Bldg., Canton, $58,422.

Ia., Chariton—Lucas Co. grading 5.878 mi. primary roads, northeast from here, Federal Aid Project 63, 92,486 cu.yd. excav., to G. L. Roberts, Chariton, $0.259 per cu.yd. Noted Nov. 17.

Ia., Indianola—Warren Co. grading 8.549 mi. primary roads north of Norwalk and north of here, Primary Rd. Project 44, 155,982 cu.yd. excav., to Cox Bros., Dike, $0.26 per cu.yd. Noted Nov. 10.

N. D., Devils Lake—Ramsey Co., gravel surfacing 12.5 mi. Federal Aid Project 95, thru Penn and Grand Harbor, 17,022 cu.yd. gravel, to Hohman, Webster & Son, Turtle Lake, $23,829. Noted Nov. 24.

Mont., Livingston — Paving various streets, 4,100 cu.yd. excav., 12,100 sq.yd. concrete paving, 5,000 ft. attached curb; and storm sewers in Special Impvt. Dist. 101, 1,579 ft. 8-30 in. pipe, etc., to McLaughlin & O'Neil, Livingston, $34,000. Noted Sept. 1.

Missouri—State Hy. Dept. at div. office Chillicothe, 1.804 mi. road east and west through Livingston Co., State Aid Project 20.34, Livingston Co., to C. W. Dillingham, St. Joseph, $24,723. Noted Dec. 1.

Missouri—State Hy. Dept. at div. office Columbia, 4.157 mi. road from Ashland to Jefferson City, State Aid Project 20.77, Boone Co., to K. A. Raines Co., Fayette, $17,196. Noted Nov. 3.

Missouri—State Hy. Dept. at div. office Mexico, 7.247 mi. road east and west through Audrain Co., State Aid Project 20.95, Audrain Co., to L. W. Spengler, Edinburg, Il., $23,915. Noted Dec. 1.

Tex., Marshall—Harrison Co. to F. P. McElwrath, Corsicana, grading, surfacing with crushed stone and gravel, and topping 4.21 mi. Sect. B, State Highway 11, Federal Aid Project 42, 700 cu.yd. borrow, 23,730 gal. bituminous material, $8,085, material to be furnished by county $22,697, total incl. 10% for engineering and contingencies $33,860; 16.29 mi. Sect. C, State Highway 11, Federal Aid Project 142, 22,421 cu.yd. borrow and 1,543 cu.yd. roadway excav., 91,289 gal. bituminous material, $49,447, material furnished by county $54,372, total incl. 10% for engineering and contingencies $114,200; 19.03 mi. State Highway 11, Sect. A, Federal Aid Project 142, 8,432 cu.yd. earth borrow, 835 cu.yd. roadway excav., 107,174 gal. bituminous material, $59,530, material to be furnished by county $39,479, total incl. 10% for engineering and contingencies $108,910. Noted Dec. 1.

Col., Pueblo — Curbing and paving 9 blocks Evans Ave., 46 and 50 ft., Warren-bitulithic, to Strange-Maguire Paving Co., Utah Savings & Trust Bldg., Salt Lake City, Utah, $74,554.

Wash., Seattle—Paving Elliott Ave. et al, clay, to Olympic Constr. Co., 1326 Northlake Ave., $324,604. Noted Dec. 8.

California—State Hy. Comn., Sacramento, surfacing 7.9 mi. highway between Morgan Hill and Gilroy, Santa Clara Co., 9,210 ton asphaltic concrete surface, at $4.79 per ton, to Clark & Henery, 38 South Sutter St., Stockton, total $44,116; 3.7 mi. highway between Selma and Kingsburg, Fresno Co., 4,400 ton asphaltic concrete surface, at $5, to California Constr. Co., San Francisco, total $37,739; 7.04 mi. road from ¾ mi. northwesterly from Castaic to 11 mi. south of Liebre Mountain, Los Angeles Co. 10,240 ton asphaltic concrete surface, at $7.25, to Southwest Paving Co., Washington Bldg., Los Angeles, total $75,648. Constructing 3 rein.-con. girder bridges in Shasta Co., across Anderson Creek, Canyon Creek and Oregon Gulch, near Redding, to Thompson, Miller & Thompson, Oakland, $18,077. Noted Nov. 24 and Dec. 1.

Cal., Los Angeles — Bd. Supervs. Los Angeles Co., paving College Ave., asphaltic concrete, to G. R. Curtis, 2440 East 26th St., $47,362. Noted Dec. 8.

Cal., Sacramento — Bd. Supervs., Sacramento Co., grading and paving River Rd., near town of Hood, Dist. 744, Sect. 1, involves 2,270 cu.yd. excav., 3,206 cu.yd. concrete, Sect. 2, 520 cu.yd. excav., 735 cu. yd. conrete, to General Constr. Co., Sharon Bldg., San Francisco, $60,000.

Cal., San Francisco — Grading, curbing and paving San Jose Ave. between Ottowa and Sickles Aves., 8,530 cu.yd. excav., 4,960 cu.yd. fill, 5,816 lin.ft. concrete curb, 124,415 sq.ft. asphaltic concrete paving, to Raisch Impvt. Co., 46 Kearny St., $59,831.

Cal., Stockton—Paving to C. Moreing, Commercial Savings Bldg., Clements-Ione Rd. in Wild Goose Valley, $62,729, 6 mi. Waterloo-Linden Rd., oil macadam, $58,733, Kettleman Lane Rd., $8,970, Lockeford-Elliott Rd., $28,484, Louis Nolan Rd., $8,659, Carlin Rd., $16,355. Noted Oct. 27.

Industrial Works

PROPOSED WORK

Mass., Southbridge—C. H. Knight, 143 Main St., plans 1 story garage and sales building, brick, Hamilton St. $40,000. Architect not selected.

Conn., Bridgeport — Estate of S. H. Wheeler, 1188 Main St., having revised plans prepared by C. F. Baron, archt., 79 Sage St., 3 story, 90 x 120 ft. rein.-con. garage, Middle and Gold Sts. Noted Aug. 4.

Conn., Danbury—H. Dick, 140 Main St., plans 1 story, 100 x 100 ft. brick garage and repair shop, Main St. $40,000. Architect not selected.

Conn., East Hartford (Hartford P. O.)—H. E. Bidwell, 209 State St., Hartford, having plans prepared by Associated Architectural & Eng. Co., 145 State St., Springfield, Mass., 1 story, 50 x 122 ft. and 20 x 122 ft. rein.-con. and brick garage, Connecticut Blvd., here. $40,000.

Conn., Windsor — Farmington River Power Co., c/o E. W. Pelton, Poquonock St., plans four unit power plant, 12,000 hp. capacity, also 1,000 ft. earthen dam, on Farmington River. I. W. Jones, Milton, N. H., engr.

N. Y., Long Island City—Natl. Printing & Engraving Co., 136 West 52nd St., New York, plans 4 story plant, Washington Ave. from 6th to 7th Sts., here. $400,000.

N. Y., New York—A. Lewinsohn & Sons, 61 Bway., soon takes bids 2 story, 50 x 60 ft., brick, steel and concrete garage, plain foundation, 185th St. and Bway. $90,000. J. De Hart, 1041 Fox St., archt. and engr.

N. Y., Rochester—Frankel Bros. & Co., 48 Commercial St., plans 4 story, 62 x 146 ft. rag storage plant, rein.-con. $86,400. S. Firestone, 59 South Ave., consult. engr.

Pa., Greensburg—L. L. Smith & Co., 526 Horner St., Johnstown, plan 2 story, 80 x 160 ft. warehouse, planing mill, etc., West Otterman St. $50,000.

Pa., Turtle Creek—See "Buildings."

Md., Baltimore—Continental Garage & Service Corp., 715 Gaither Estate Bldg., 111 North Charles St., having plans prepared by L. L. Wagner, archt., Union Trust Bldg., 5 story, concrete and brick garage and service station, 120,000 sq.ft. floor space, Monument and Howard Sts.

Va., Richmond—Virginia Carolina Rubber Co., 17 North 19th St., plans 1 story factory, 25,000 sq.ft. floor space, on Government Rd. along tracks Southern R.R. $130,000.

Fla., Osceola (Sanford P. O.)—Osceola Cypress Co. plans sawmill, dry kiln, etc. $100,000.

O., Cleveland—A. Kohn & Sons Investment Co., 2380 Canal Rd., having plans prepared by P. Matzinger & Co., archts., Caxton Bldg., 3 story brick and steel garage and commercial building, plain foundation, Chester Ave. and East 20th St. $40,000.

Ind., Goshen — L. W. Seaman having plans prepared 2 story, 50 x 100 ft., brick and concrete storage warehouse. $50,000. Private plans.

Ind., Indianapolis — I. Marks, 517-19 South Delaware St., making plans 2 story, 75 x 125 ft., brick, warehouse and office building, North Senate Ave. $150,000. Private plans.

Ind., Kokomo—Hamilton Harris & Co., 117-19 South Meridian St., Indianapolis, plans 3 story, 32 x 166 ft., brick, steel and concrete, warehouse and office building. $100,000. Architect not announced.

Ind., South Bend—Making plans 1 story, 20 x 50 ft. brick power station. $45,000. W. W. Artingstall, 37 West Van Buren St., Chicago, engr.

Ill., Decatur—C. A. Starr, 137 Park Pl., plans 1 story, 75 x 162 ft. garage, brick and steel. $40,000. Architect not selected.

Wis., Delton—Cole Bros. take bids about Jan. 1, 2 story, 50 x 90 ft., brick, rein.-con. and steel garage and repair shop. $40,000. Private plans.

Wis., Highland—Richter Mfg. Co., c/o J. Richter, pres., plans 2 story, 50 x 60 ft., brick, rein.-con. and steel factory. $40,000. Architect not selected.

Wis., Green Bay—Investment Corp. of Green Bay, 118 West Walnut St., opens bids about Jan. 10, 3 story, 80 x 240 ft. cold storage plant, rein.-con., brick and steel, North Bway. $250,000. Private plans.

Wis., Milwaukee — Republic Investment Co., 160 5th St., opens bids about Dec. 19, 1 story, 98 x 123 ft., film storage building, brick and concrete, plain foundation,

Industrial Works (Continued)

Wells and 11th Sts. M. Tullgren & Sons, 425 East Water St., archt.

Wis., Rhinelander—S. Miller Fruit Co. having plans prepared 3 story, 53 x 126 ft., brick, rein-con. and steel warehouse and cold storage plant, plain foundation. $150,000. Private plans.

Wis., South Milwaukee—Burnham Bros. Brick Co., 68 Wisconsin St., Milwaukee, plans factory on Chicago Rd., here, incl. group 1 story, brick buildings. $150,000.

Wis., Waupaca—J. W. Osborn plans 2 story, 58 x 65 ft., brick and rein.-con. garage. $45,000. Architect not selected.

Ia., Mason City—Dennison Garage Co. having plans prepared by G. L. Lockhart, archt., 1353 University Ave., St. Paul, Minn.,, 2 story, 50 x 130 ft. garage, rein.-con. and brick. $50,000.

Minn., Minneapolis—Potts Motor Co., 1017 4th Ave., S., plans 2 story, garage, brick and concrete. $125,000. Architect not selected.

S. D., Watertown—Kampeska Materials Co. plans sand and gravel washing and screening plant. $40,000. D. C. Noonan, pres.

N. D., Devils Lake—Midwest Power Co., Hackney Bldg., St. Paul, Minn., plans 1 story, 40 x 40 ft. power house, brick and concrete, here. Cost including equipment $40,000. A. H. Savage, pres.

Mo. Cape Girardeau—International Shoe Co., 15th and Washington Sts., having plans prepared 3 story, rein.-con. and steel factory, here. $100,000. A. Hume, c/o owner, engr.

Mo., Kansas City—L. Singer Product Co., 6 Market Sq., having plans prepared by Tait & Nordemeyer Eng. Co., engrs., International Life Bldg., St. Louis, rein.-con., brick and stone warehouse. $175,000.

Mo., St. Louis—J. O. Chenoweth Dyeing & Cleaning Co., 1400 Washington St., having plans prepared by A. B. Groves, archt., 314 4th St., 1 story brick, concrete and stone plant, Delmar Blvd. and Bayard Ave. $50,000.

Mo., Sweet Springs—International Shoe Co., 15th and Washington Sts., St. Louis, plans 2 story, rein.-con., brick, steel and stone factory, here. $75,000. Architect not selected.

Cal., San Francisco—Bd. Harbor Comrs. soon takes **bids 6 story, 123 x 812 ft.,** rein.-con. warehouse, also seawall, railroad tracks, etc., area between Embaracadero, 3rd and Berry Sts., and China Basin. Will require at least 8 or 9 months to complete foundation work. $2,500,000. **F. G. White, Ferry Bldg., engr.**

Ont., Petrolea—Peninsular Sugar Co. had plans prepared by A. Owens, archt. and engr., c/o owners, for 2 and 4 story, rein.-con. and brick refinery, 600 ton capacity. $1,500,000. F. H. Hubbard, genl. mgr. Noted Nov. 3.

Ont., Toronto—A. E. Rea, 709 Continental Life Bldg., having sketches made by B. H. Prack, archt., 50 Bay St., concrete and brick plant, Bathurst St. $200,000.

BIDS DESIRED

Conn., Southington—Peck, Stow & Wilcox Co., Railroad Sq., receiving bids 1 story, 67 x 180 ft. hardening building, 2 story, 56 x 156 ft. grinding building, and 1 story, 59 x 100 ft. forge building, brick and steel, plain foundations. $200,000. Noted April 11.

N. J., Fernwood (Trenton P. O.)—Dec. 27, by L. Grover, clk. State Hy. Dept., Trenton, 106 x 404 ft. auto service station, 25 ft. 9 in. high, brick and steel, concrete pile foundation, here. C. A. Mead, 790 Broad St., Newark, engr; adv. this issue.

N. J., Secaucus (Weehawken P. O.)—See "Buildings."

Pa., Pittsburgh—United Eng. & Fdry. Co., Farmers Bank Bldg., 1 story, 65 x 220 ft. additio nto plant, 54th St. Work will be done by separate contract.

W. Va., Wheeling—White Swan Laundry, 30 10th St. 2 story 100 x 200 ft. and 50 x 82 ft., laundry, brick and steel; excav., to T. W. Jackson, 31 Poplar Ave.; structural steel, to J. E. Moss Iron Wks., 4 28th St. Total $65,000. Work will be done by separate contracts.

O., Cleveland—P. Matzinger & Co., archts., Caxton Bldg., taking bids 1 story, 60 x 180 ft., brick and steel factory, plain foundation, East 72nd St., for Cleveland Refrigerator Co., 2996 East 72nd St. $50,000.

O., Toledo—Toledo Indiana R.R., 837-41 Ohio Bldg., taking bids 3 story, 30 x 1,000 ft. addition to plant, 54th St. Work will plain foundation, Ontario and Washington Sts., $40,000. Mills, Rhines, Belman & Nordhoff, 1234 Ohio Bldg., archts.

Ind., Indianapolis—F. R. Chandler, 3817 North Pennsylvania St., receiving bids 5

INSPECTION SHED ENCLOSURE—BROOKLYN, N. Y.

Bids were received Dec. 5, (lowest 3), by Transit Comn., 49 Lafayette St., New York, for Livonia Ave. Yard Inspection Shed Enclosure, Route No. 31, from (A) Rosenthal Engineering Contracting Co., 226-228 Jackson St.; (B) Norman A. Deiser, 390 Bway.; (C) P. T. Cox Contracting Co., Inc., 154 Nassau St., New York City. The unit bids were as follows:

	A	B	C
20 cu.yd. earth fill in place, Sec. 257	$3.00	$3.00	$1.00
1,150 cu.yd. structural concrete work (a) plain foundation	18.00	14.00	20.00
520 cu.yd. structural concrete work (c) for reinforced	19.50	22.00	27.65
350 sq.yd. tooling concrete surfaces	2.00	2.25	1.00
1,500 cu.yd. brick masonry in place	25.50	25.50	27.00
Brick chimneys complete (c) for radial (lump sum)	2,970.00	5,000.00	3,000.00
100 cu.yd. hollow T.C. brick or tile, any thickness	31.00	25.50	22.00
13,000 sq.ft. layer of slag or gravel for roofs	.025	.03	.03
2,700 sq.yd. waterproofing felt (e) for 5-ply	.75	.75	.73
14 tons erecting and painting structural steel	20.00	60.00	22.00
15 tons steel beams and shapes	100.00	100.00	85.00
30 tons steel rods and bars	85.00	90.00	76.00
0.5 tons miscellaneous castings	300.00	260.00	200.00
1 ton miscellaneous furnishings, sewer manholes, etc	400.00	260.00	220.00
200 sq.ft. steel gratings	2.00	2.00	2.50
350 lin.ft. 12-in. vitrified pipe sewer	5.00	6.50	2.20
200 lin.ft. 15-in. vitrified pipe sewer	5.00	6.50	2.75
Plastering Flat Surfaces:			
2,500 sq.yd. (a) plastering brick or hollow tile	.90	.90	1.25
50 sq.yd. (b) plastering concrete	.95	.90	1.25
10 sq.yd. (c) plastering metal lath	2.00	1.00	1.50
Concrete Slabs Reinforced:			
40 sq.ft. (a) 3½-in. slab	.21	1.00	.60
60 sq.ft. (b) 4-in. slab	.24	1.00	.70
10 sq.ft. (d) 2-in. slab	.15	1.00	.50
Concrete Stairs, Landings:			
350 lin.ft. (a) self-supporting stairs	1.10	1.50	.70
60 lin.ft. (b) self-supporting landings	1.00	1.00	.60
30 cu.ft. (e) col. supporting landings	1.00	1.00	1.00
230 sq.ft. (f) non-slip treads	1.20	1.50	1.70
130 lin.ft. (g) cement bases	.15	.25	.75
50 lin.ft. hollow T.C. tile masonry (h) 12x12-in. flue lining	1.00	.60	.85
50 lin.ft. hollow T.C. tile masonry (i) 12x24-in. flue lining	3.50	3.00	2.50
10 galvanized strap anchors in place	3.00	.75	.70
2,000 lin.ft T.C. coping in place (a) 12-in. walls	.42	.45	.70
Kalamein doors in place:			
1 (b) type "B"	120.00	110.00	125.00
8 (c) type "C"	120.00	93.00	140.00
10 (d) type "D"	65.00	93.00	75.00
2 (e) type "E"	70.00	44.00	80.00
10 (f) type "F"	140.00	88.00	140.00
1 (g) type "G"	75.00	44.00	95.00
2 (k) type "K"	55.00	40.00	50.00
4 (m) type "M"	75.00	44.00	70.00
750 sq.ft. (n) type "N"	6.20	4.25	8.00
1 (p) type "P"	60.00	44.00	50.00
1 (r) type "R"	60.00	50.00	150.00
3 (u) type "U"	365.00	225.00	400.00
3 (v) type "V"	240.00	125.00	250.00
1 (z) type "Z"	225.00	125.00	250.00
Additional Hardware in Place:			
22 (a) door checks	7.20	7.75	8.50
70 (b) swing door stops	2.93	3.25	4.00
12 (c) rubber covered chains	3.25	3.50	4.00
20 (d) push plates	.40	.50	.75
6 (e) door pulls	.55	.50	1.00
6 (f) kick plates	7.20	8.00	8.50
6 (i) heavy mortise locks (dead)	5.00	5.50	10.00
11 (j) heavy mortise locks (dead)	7.00	7.50	15.00
6 (k) heavy mortise latches	5.15	5.50	12.00
13 (l) heavy mortise cylinder locks	9.90	11.00	20.00
1 (m) heavy half mortise	4.75	5.00	8.00
2 (n) heavy pin tumbler	3.80	4.25	7.00
7 sets (o) hinged hasp and staple	.75	.80	2.00
5 (p) push bar emergency box	10.25	11.00	15.00
14 (r) coat hooks	.04	.50	.10
6 (s) extra heavy surface bolts	1.40	1.50	2.20
1 (f) heavy flush bolts	1.75	2.00	2.50
85 lin.ft. railings in place (g) pipe railing	2.25	2.75	4.50
1,800 lin.ft. metal fences (c) wire mesh fence	2.35	2.40	1.80
50 lin.ft. tr. steel ladders (a) steel ladders	5.00	3.00	5.50
20 sq.ft. (b) steel ladders plat	5.00	3.00	7.00
Rough plumbing, complete (lump sum)	8,675.00	10,600.00	9,240.00
30 sq.ft. steel covers for coal chutes	4.00	3.50	5.00
Plumbing Fixtures:			
16 (a) water closet bowls	95.00	62.50	73.00
2 (c) lavatories	56.00	82.00	90.00
18 (d) urinals	120.00	100.00	92.00
1 (g) slop sinks	84.00	78.00	82.00
12 (h) floor drains	28.00	13.25	25.00
13 sq.ft. (k) wash sinks	143.00	107.00	72.00
900 sq.ft. (m) wainscoting	1.37	1.35	1.40
550 sq.ft. (n) pipe chamber part	1.37	1.25	1.40
250 sq.ft. (o) shelves	1.37	1.25	1.40
950 sq.ft. (p) stall partitions	1.65	1.25	1.50
100 lin.ft. (q) floor slabs	2.20	1.25	1.50
130 (r) curved corners	1.65	2.00	1.15
6 lbs. (s) seats	2.00	6.00	1.70
7,000 lin.ft. steel angles, etc	.11	.08	.10
Electric Conduits:			
1,450 lin.ft. (a) ¾-inch	.17	.22	.23
400 lin.ft. (b) 1-inch	.22	.25	.32
20 lin.ft. (c) 1½-inch	.45	.60	.58
80 lin.ft. (d) 2-inch	.55	.76	.93
5 (f) 3-inch	1.00	1.30	1.65
100 cast iron outlet boxes	2.10	1.40	2.75
20 cast iron pull boxes (f) 6x6x4 in	3.50	4.70	5.80
3 steel panel board boxes (o) 45x29x6 in	32.00	32.00	28.00
2 steel panel board boxes (q) 53x27x6 in	35.00	34.00	33.00
1 steel switchboard boxes (c) 12x30x9 in	17.00	19.00	30.00
Ventilator inspection shed roof (lump sum)	200.00	200.00	182.00
Galvanized iron vent. flue (lump sum)	100.00	150.00	138.00
130 lin.ft. oak hand rail	.32	1.00	2.00
18,000 lbs. floor construction (k) checkered st. pl	.11	.11	.11
Concrete and Cinder Work:			
1,800 lbs. (a) cement wainscot	.10	.25	.25
50,000 lin.ft. (b) 1-in. cement floor finish	.085	.115	.11
40 cu.ft. (c) cement coping	.60	2.00	1.00
450 sq.ft. (b) cinder concrete	.30	.40	.50

Item	A	B	C
Waterproof Roofing Tile:			
22,000 sq.ft. (a) interlocking tile	.35	.365	.37
10,000 sq.ft. (b) flat tile	.33	.34	.35
1,400 sq.ft. (d) ridge tile	.80	.83	.83
1,700 lin.ft. copper flashing	.28	.27	.28
Metal Leaders:			
30 lin.ft. (a) 3-in. corrugated galvanized iron	.60	1.20	1.00
450 lin.ft. (c) 3-in. galvanized wrought iron	2.16	2.15	.85
10 lin.ft. (d) 3½-in. galvanized wrought iron	2.45	2.00	1.00
1,000 lin.ft. (f) 4-in. galvanized wrought iron	3.07	1.40	1.20
80 lin.ft. (h) 6-in. galvanized wrought iron	3.92	2.80	2.00
450 lin.ft. (i) 4-in. cast iron	1.38	2.50	.10
50 lin.ft. (j) 4-in. corrugated galvanized iron	.80	1.20	.88
200 lin.ft. (k) 6-in. cast iron	2.65	2.60	.10
90 sq.ft. saddles for doors (a) cast iron saddles	2.50	3.30	2.25
10 sq.ft. saddles for doors (b) steel saddles	2.00	2.00	1.75
250 sq.ft. metal lath (c) metal lath without st. furr	.10	.25	.10
15 sq.ft. metal lath (b) metal lath with st. furr	.35	.30	.25
7,500 sq.ft. metal lath (c) special wire forms	.12	.04	.04
32 Hardware for window sash (c) double hung sash	3.00	3.25	5.00
3,500 sq.ft. crew rooms and oil house (aa) exterior walls	.68	1.46	.75
6,000 sq.ft. crew rooms and oil house (b) crimped gal. iron on walls.	.25	.32	.28
5 crew rooms and oil house (f) galvanized iron ventilators	20.00	25.00	33.00
4,300 sq.ft. crew room and oil house (g) roof	.60	1.05	.33
1,600 sq.ft. crew room and oil house (i) partition walls	.50	.70	.50
3,300 sq.ft. crew rooms and oil house (k) framing and furring	.30	.30	.50
2 cast iron registers	10.00	15.00	5.00
40,000 sq.ft. painting plaster, etc. (a) painting plaster	.10	.044	.00
12,500 sq.ft. steel sash windows (i) steel sash windows	.55	.73	.86
6,500 sq.ft. steel sash windows (j) steel sash windows, elsewhere.	.79	.60	.61
1 water connections (b) water conn. whatever size	300.00	900.00	225.00
110 lin.ft. furnishing and install. narrow gauge track	2.50	1.65	4.00
Furnishing and erecting drip pans Livonia Ave. Route (lump sum)	1,200.00	850.00	600.00
Extended totals	$180,003	$181,893	$185,835

Industrial Works (Continued)

story, 60 x 202 ft., brick, steel, concrete, terra cotta and brick garage, at 30-32 West Vermont St. $250,000. Vonnegut, Bohn & Mueller, 610 Ind. Trust Bldg., archts. Noted Dec. 8.

Wis., Milwaukee—Lockwood, Green & Co., archts., 38 South Dearborn St., Chicago, receiving bids 3 story 260 x 315 ft., rein.-con. and brick tannery, 658 Commerce St., here, for Amer. Hide & Leather Co., 1320 Elston St., Chicago. $500,000. Noted Oct. 27.

Ia., Corning—Jan. 15, 1 story, 42 x 42 ft. power plant. $60,000. C. K. Munn, Corning, engr. Noted July 21.

Cal., Sacramento—A. B. Atkinson, 3256 5th Ave., 1 story, 80 x 160 ft. ice plant, brick, Southeast 13th and S Sts. $75,000. Work will be done by separate contracts.

BIDS RECEIVED

O., Marion—Hornell Ice & Cold Storage Co., 2 story, 60 x 90 ft., brick and concrete plant addition, from Blome-Sinek Co., 139 North Clark St., Chicago, $45,000.

Minn., Minneapolis—State Bd. Control, Capitol Bldg., St. Paul, 3 story mines experiment station, rein.-con., brick, tile and stone, at State University, from J. Peterson, 3152 10th Ave., S., $192,800; Gauger-Korsmo Constr. Co., 301 Endicott Bldg., St. Paul, $194,693; J. and W. A. Elliott, 906 Lumber Exch., $201,316. Noted Nov. 24.

CONTRACTS AWARDED

Mass., Northampton — Smith College, 2 story, 45 x 120 ft. rein.-con., brick and steel laundry and garage, plain foundation, on campus, to F. T. Ley Co., Inc., 499 Main St., Springfield, $75,000.

R. I., Pawtucket—Providence Braid Co., Lowden St., 2 story, 100 x 105 ft. brick and wood addition to plant, plain foundation, by day labor. $50,000. F. P. Sheldon & Son, Hospital Trust Bldg., Providence, engrs.

Conn., Bridgeport—Nichols Underwear Corp., 23 Benham St., 2 story, 50 x 100 ft. brick and wood addition to factory, Benham Ave., to J. J. Pardy Constr. Co., 1481 Seaview Ave. Noted June 16.

Conn., East Hartford (Hartford P. O.)—Charter Oak Machine Co. 438 Asylum St., Hartford, 1 story, 60 x 100 ft., rein.-con., brick and steel factory, plain foundation, Connecticut Blvd., here, to Austin Co., 217 Bway., New York.

N. Y., Long Island City—Interstate Land Holding Co., c/o F. S. Parker, archt. and engr., 44 Court St., Brooklyn, 2 story, brick, steel and concrete service station, plain foundation, William and 13th Sts., here, to Ettinger Contg. Co., 44 Court St., Brooklyn, $100,000. Noted June 23.

Pa., Turtle Creek—Wilkinsburg Ice Co., 208 Centre Ave., Wilkinsburg, 1 story, 85 x 106 ft. brick and steel plant, Monroeville Rd., here, to E. Z. Peffer, 747 Hill Ave., Wilkinsburg, $125,000.

Pa., Washington—Tyler Pipe & Tube Co., general contract for 1 story, 20 x 50 ft. boiler house and 50 x 50 ft. gas producer house, steel, to Riverside Bridge Co., Washington, $50,000. Noted Dec. 1.

W. Va., Huntington—Standard Dry Goods Co., 435 5th Ave., general contract 5 story, 45 x 200 ft. jobbing house fireproof construction, 7th Ave. and 10th St., to Arnold Co., Chesapeake & Ohio R.R. Shops. Total $200,000.

Ky., Louisville—Natl. Candy Co., Federal Reserve Bank Bldg., St. Louis, Mo., 5 story, candy factory (known as Frank A. Menne Factory), 1456 West Bway., here, to Struck Constr. Co., 147 North Clay St. $600,000.

O., Cleveland—Ancaster Garage Co., c/o F. X. Cull, Cuyahoga Bldg., 2 story, 90 x 142 ft., brick, steel and concrete garage, plain foundation, 7500 Euclid Ave., to Drummond-Miller Co., 4500 Euclid Ave., $75,000.

O., Cleveland—Whitmer-Jackson Sash & Door Co., 1996 West 3rd St., 1 story, 70 x 128 ft., brick and steel factory addition, plain foundation, to A. Thomas, 2431 East 83rd St., $40,000. Noted Dec. 8.

Mich., Ironwood—J. F. Gluck, 2 story, 30 x 115 ft. concrete and brick garage, plain foundation, to Albinson Constr. Co., 300 5th Ave. S., Minneapolis, $40,000.

Ill., Chicago—P. Gerhardt, archt., 64 West Randolph St., 1 story, 103 x 115 ft. factory, rein.-con., brick and steel, 4203-09 Grand Ave., to A. and E. Anderson, 19 South La Salle St., for Nemo Dye Wks., c/o architects. $125,000. Noted Dec. 1.

Ill., Chicago—G. S. Kingsley, archt., 109 North Dearborn St., 7 story, 168 x 190 ft., warehouse, rein.-con., brick, steel and terra cotta, 3925-29 North Clark St., to R. Sollit Sons Co., 30 North La Salle St., for W. C. Reebie & Bro., 2531 Sheffield Ave. $400,000. Noted Nov. 10.

Wis., Green Bay—Fort Howard Paper Co., brick, rein.-con. and steel, general contract 3 story, 100 x 120 ft., paper mill and power house, to L. M. Hansen Co., 113 West Walnut St., $105,000. Private plans.

Minn., Minneapolis—North Star Woolen Mills Co., 3rd Ave., S. and 2nd St., 6 story, 66 x 145 ft. warehouse, rein.-con. and brick, to Pike & Cook, 416 South 5th St., $75,000.

Mo., Kansas City—E. K. Campbell Heating & Plumbing Co., 1314 East 19th St., 1 story, 55 x 130 ft., brick and concrete warehouse, 2441-45 Charlotte St., by day labor. $40,000. C. Boller & Bros., 508 Ridge Blvd., archts.

Mo., St. Louis—Haynes & Langenberg Mfg. Co., 4045 Forrest Park Blvd., rebuilding 2 story, brick and concrete factory, to C. B. McCormack & Sons, Columbia Bldg., $125,000. Noted Nov. 17.

Buildings

PROPOSED WORK

Mass., Amherst—Library—Amherst College having sketches made by Putnam & Cox, archts., 114 State St., Boston, 2½ story brick and stone, on campus. $500,000.

Mass., Boston — School — Schoolhouse Dept. having plans prepared by C. J. Bateman, archt., 15 Exchange St., 2 story addition to John Lathrop Motley School, Savin Hill Ave. $150,000.

Mass., Leominster—Theatre—Gem Theatre, Main St., plans 1 story, 100 x 150 ft. brick and steel, Main St. and Meriam Ave. $150,000. Architect not announced.

Conn., Hartford — Business — D'Esopo Realty Corp., 647 Main St., plans to alter business and Store building, brick and steel, Main and Sheldon Sts. $150,000. H. H. Beckenstin, 54 Church St., archt.

Conn., Hartford — Church — First Unitarian Church having plans prepared by A. M. West, archt., 926 Main St., 1 story, brick, steel and stone, Pearl St. $150,000. C. Groves, 12 Vineland Terrace, pastor.

Conn., Hartford—Theatre, etc.—Park St. Investment Co., 274 Park St., opens bids about Dec. 30, 3 story, rein.-con., brick and steel, plain foundation, Park St. $175,000. E. T. Wiley, 75 Pratt St., archt.

Conn., New Britain—School—Bd. Educ. plans 3 story, brick and steel, Washington St. $367,000. D. K. Perry, 27 West Main St., archt. Noted May 12.

Conn., New Haven—Church and Rectory—St. Boniface Roman Catholic Church, having sketches made by G. A. Zunner, archt., 182 High St., Hartford, 1½ story church and 2½ story rectory, brick and steel, State St. $150,000. J. A. Heller, 229 George St., pastor.

Conn., New Haven—High School—Westville School Dist. plans 2 story, concrete, brick and steel, Fountain and Emerson Sts. $200,000. Brown & Von Beren, 185 Church St., archts. L. W. Robinson, 42 Church St., consult. archt.

Conn., Newington — Home — Connecticut Children's Aid Society, 926 Main St., Hartford, having plans prepared by I. A. Allen, Jr., Inc., archt., 904 Main St., Hartford, for new home, incl. dormitories, school, hospital and nurses buildings. $600,000.

Conn., West Hartford (Hartford P. O.)—Home—St. Agnes Home, Steele Rd. and Asylum Ave., plans 3 story, concrete and brick addition. $150,000. Architect not selected.

N. Y., Brooklyn—Apartment—Park and Tenth St. Constr. Co., Inc., c/o Shampan & Shampan, archts. and engrs., 50 Court St., having plans prepared 6 story, 95 x 100 ft., brick, steel and stone, plain foundation, Prospect Park West and 10th St. $250,000.

N. Y., Brooklyn—Theatre and Stores—Strausberg & Biender, 492 De Kalb Ave., soon takes bids 2 story, brick, steel and stone, plain foundation, Bway. and Kosciusco St. $250,000. R. T. Short, 370 Macon St., archt. and engr.

N. Y., Buffalo—Office—L. R. Steele Co., Inc., 323 Washington St., having plans prepared by Lewis & Hill, archts., Brisbane Bldg., 12 story, 60 x 107 ft., modern fireproof construction, Washington St. $400,000.

N. Y., Buffalo—Temple—Eastern Star and White Shrine, 208 Benzinger St., plan temple. $500,000. J. C. Heisenbuttle, treas. and chn.

N. Y., Elmira—Bank—Elmira Savings Bank takes bids about Jan. 1, 1 story, 27 x 75 ft., 218 East Water St. $165,000. Simons, Brittain & English, Inc., Magee Bldg., Pittsburgh, Pa., archts.

N. Y., Lackawanna — Church — Roman Catholic Polish Parish, c/o M. Paul, pastor, 21 Wood St., plans 100 x 175 ft., concrete, brick and stone, Electric and Warsaw Aves. $300,000.

N. Y., New York—Hospital—Bronx Hospital, Fulton Ave. and 169th St., plans 10 story, 100 x 150 ft., brick, steel and stone addition, plain foundation, Fulton Ave. near 169th St. Architect not selected.

N. Y., New York—Orphanage—Jewish Orphanage Asylum, Amsterdam Ave. and 138th St., had plans prepared by E. Necarsulmer, archt., 507 5th Ave., brick, steel and stone, plain foundation, 233rd St. between Baychester Ave. and Boston Post Rd. $500,000. Tenny & Ohmes, 101 Park Ave., engrs.

N. Y., New York—New York City Y. M. C. A. having preliminary plans prepared by Jallade, Lindsey & Warren, archts. and engrs., 129 Lexington Ave., brick, steel and stone, plain foundation, 161st St. and Elton Ave. $250,000.

N. Y., Niagara Falls — Store — L. R. Steele Co., 323 Washington St., Buffalo, had plans prepared by Lewis & Hill, archts., Brisbane Bldg., Buffalo, 3 story, 67 x 100 ft., rein.-con., brick, steel and stone, Main St., here. $150,000.

Buildings (Continued)

N. Y., Rochester—Nurses Home—Bd. Trustees St. Marys Hospital plans to raise $200,000, for 80 room, fireproof construction, Genesee and Rural Sts.

N. Y., Syracuse—Hospital—St. Joseph's Hospital plans either new wing or addition to present structure, on Prospect Ave. $200,000. Architect and engineer not selected.

N. Y., Syracuse—Hospital—Syracuse Memorial Hospital plans to raise $500,000 for new structure to replace present one, on West Genesee St. F. S. Wicks, pres. Bd. Trustees. Architect and engineer not selected.

N. Y., Solvay (Syracuse P. O.)—Schools—Election in January to vote on $486,000 bonds for additions to 2 schools. M. L. King, Snow Bldg., Syracuse, archt.

N. J., Bayonne—High School—Bd. Educ., 651 Bway., having plans prepared by D. G. Anderson, archt., 472 Bway., 3 story, 200 x 300 ft., brick and concrete, Ave. A, 27th to 29th Sts. $450,000.

N. J., Nutley—High School—Bd. Educ. soon takes bids, brick and stone. $400,000. Starrett & Van Vleck, 8 West 40th St., New York, archts. and engrs. Noted Feb. 17.

Pa., Carnegie—School—Voted $150,000 bonds for altering and building 2 story addition. J. H. Walker, 606 Beechwood Ave., secy. Bd. Educ. F. McC. Crooks, 541 3rd Ave., Pittsburgh, archt.

Pa., Corry—School—Bd. Educ. having plans prepared by A. P. Mount, archt., Corry, 2 story, 80 x 175 ft. brick, Wright and Congress Sts. $150,000.

Pa., Jersey Shore—Lodge—Jersey Shore Masonic Temple Assn. plans 3 story, 80 x 100 ft. concrete, brick and steel, Main St. $150,000.

Pa., Jersey Shore—Bank—Jersey Shore Trust Co. plans 3 story, 65 x 100 ft. brick and steel, Main St. $150,000.

Pa., McKeesport—High School—Bd. Educ. having plans prepared by E. Stotz, archt., Monongahela Bank Bldg., Pittsburgh, addition to Technical High School. $300,000.

Pa., Phila.—Bank—Peace & Cullen, c/o W. S. Peace, Land Title Bldg., having plans prepared by Hoffman-Henon Co., archts., Finance Bldg., 2 story, 40 x 117 ft. rein.-con., brick, steel, marble and tile, plain foundation, 1607-1609 Walnut St. $160,000.

Pa., Pittsburgh—Laboratories—University of Pittsburgh, c/o J. G. Bowman, chancellor, plans chemical, physical, biology and research laboratories, 5th and Bellefield Aves. Architect not selected.

Pa., Pittsburgh—High School—Bd. Educ. having plans prepared by McClure & Spahr, archts., Keystone Bldg., and soon takes bids 2 story, 87 x 303 ft., brick or stone, Chartiers, Hutton and Robina Sts. $500,000.

Pa., Pittsburgh—Theatre, etc.—M. Brower, 819 Federal St., plans 2 story, 60 x 240 ft. theatre and store rooms, Federal St. $200,000. E. Crump, Jr., 5423 Kentucky Ave., archt.

Pa., Turtle Creek—Sales, etc.—Struble & Riley having plans prepared by S. C. Richards & Co., archts., 430 Library St., Braddock, 2 story, 76 x 175 ft. sales and service station. $150,000. Noted June 23.

Pa., Warren—Gymnasium—Y. M. C. A., 119 Market St., plans gymnasium, swimming pool, assembly rooms, etc. $150,000.

Md., Baltimore—Hospital—Johns Hopkins Hospital, Homewood Ave., soon lets contract, womens clinic and pathological building, brick and stone. $500,000 and $600,000 respectively. J. E. Sterry, 409 Calvert Bldg., archts. and engrs.

Md., Baltimore—Hotel—Mt. Holly Apartment Hotel Corp., Calvert Bldg., having plans prepared by F. H. Fletcher, archt., 409 North Charles St., 10 story, brick and stone, Mt. Holly Ave. $1,000,000. A. T. Carroza, pres.

W. Va., Wheeling—Store—Stone & Thomas, Market St., having plans prepared by F. F. Farris, archt., Wheeling, brick addition, Market and Bridge Sts. $300,000. Will mature in spring. Noted June 9.

N. C., Carthage—Court House—Moore Co. plans court house. Bonds for $150,000 to be sold for project.

N. C., Southport—High School—Having plans prepared by J. W. Wilkins & Co., archts., Wilmington, for high school. $150,000. R. Dosher, chmn. School Bd.

Tenn., Nashville—Bank—Federal Reserve Bank, 4th and 1st Natl. Bank Bldg., soon lets contract remodeling Keith Bldg., 2 story, 40 x 112 ft., on 3rd Ave. $200,000. Marr & Holman, Stahlman Bldg., archts.

Tenn., Nashville—Hospital—Protestant Hospital, Church St., having plans prepared by Asmus & Clark, archts., Stahlman Bldg., 6 story, 50 x 275 ft. addition. $250,000.

O., Chagrin Falls—School—Orange Rural Dist., c/o T. W. Taylor, clk., takes bids in spring 2 story school and boiler house. $200,000. C. W. Bates, 77 12th St., Wheeling, W. Va., archt.

O., Cleveland—Commercial and Apartment—C. L. Streich, 11400 Euclid Ave., having plans prepared by F. W. Striebinger, archt., 1900 Euclid Ave., 4 story, 150 x 172 ft., brick and steel, plain foundation, Euclid Ave. and Ford Dr. $300,000.

O., Columbus—Apartment—R. T. Hanford, archt., 681 East Broad St., preparing plans 2 story, 60 x 225 ft., brick, tile, stucco and concrete, East Broad St. $150,000. Owners name withheld.

O., Dayton—Hotel and Auditorium—Pythian Castle Co., 329 South Main St., plans 8 story, brick and rein.-con. hotel and 1 story, brick and steel auditorium, South Main St. $300,000. Architect not selected.

O., Harrison—School—A. R. Williams, trustee, having plans prepared by H. M. Griffin, archt., 105 McFarlan Bldg. Connersville, Ind., 2 story, brick. $150,000.

O., Lakewood (Cleveland, P. O.)—Commercial—W. R. Daniels, 15800 Detroit Ave., having plans prepared by J. W. Chrisford, archt., 1452 Lake Ave., 3 story, 69 x 110 ft., brick and steel, plain foundation. $150,000.

O., Middletown—Office and Store—S. Bergstein, pres. Interstate Folding Box Co., plans 5 story rein.-con. and brick, 3rd St. and Bway. $175,000. Architect not selected.

O., Oxford—Dormitory—Miami University Trustees open bids about Feb. 1, 3 story, rein.-con., on campus. $150,000. W. L. Tobey, Hamilton, pres.

O., West Park—Schools—Bd. Educ. having plans prepared by R. F. Medicus, archt., 268 Crandall St., Youngstown, two 2 story, brick, steel and concrete school additions, plain foundations. $150,000.

Ind., Anderson—Bank—Anderson Banking Co., 10th and Meridian Sts., plans 4 story, brick, concrete and steel. $225,000.

Ind., Batesville—Memorial—Batesville Memorial Comn. having plans prepared by K. P. Hinkel, archt., 108 Heisnmann Bldg., Connersville, 2 story, 66 x 101 ft. brick, tile, stone and steel. $150,000.

Ind., Butler—High School—Bd. Educ. having plans prepared by A. H. Elwood & Son, archts., Haynes Bldg., Elkhart, 2 story, 57 x 125 ft., brick. $150,000.

Ind., Churubusco—School—C. Miller, trustee, Churubusco, and C. H. Hartung, trustee, Huntertown, having plans prepared by G. Mahurin, archt., 500 Lincoln Life Bldg., Ft. Wayne, 2 story, 70 x 135 ft., brick. $150,000.

Ind., Connersville—Court House—Comrs. Fayette Co., plan stone and steel. $300,000. Architect not selected.

Ind., Decatur—School—A. E. Hunt, trustee, Bluffton, having plans prepared by O. Hoffman, archt., Studebaker Bldg., 2 story, 95 x 125 ft., brick, here. $150,000.

Ind., Evansville—Apartment—G. W. Worth Co., Robinson Bldg., Champaign, Ill., having plans prepared by C. Shopbell & Co., archts., Furniture Bldg., 3 story, 85 x 135 ft., brick, South 1st St., here. $150,000.

Ind., Ft. Wayne—Church—First Evangelical Church plans 2 story, brick and stone, De Wald and Clinton Sts. $150,000.

Ind., Ft. Wayne—Hospital—Comrs. Allen Co. having plans prepared by C. R. Weatherhogg, archt., Citizens Bank Bldg., 3 story, brick. $150,000.

Ind., Goshen—High School—Bd. Educ. having plans prepared by A. H. Ellwood & Sons, archts., Haynes Bldg., Elkhart, 2 story, 95 x 120 ft., brick. $300,000.

Ind., Indianapolis—Apartment—W. T. Myers, 314 West 21st St., plans 3 story, brick, 2101-07 Highland Pl. $150,000. Private plans.

Ind., Indianapolis—Church—Columbia Place Christian Church, Cornelius Ave., plans 2 story, 125 x 135 ft., brick and stone, Capitol Ave. $150,000. Architect not selected.

Ind., Indianapolis—Club—Highland Golf Club, c/o C. L. Kirk of Indianapolis Water Co., 113 Monument Pl., having plans prepared by Bass, Knowlton & Co., archts., 801 Hume-Mansur Bldg., 2 story, stucco, concrete and tile, near Riverside Park. $150,000.

Ind., Indianapolis—School—Bd. Educ. having plans prepared by E. E. Dunlap & Co., archt., 909 State Life Bldg., 2 story, 95 x 138 ft., brick, Bloyd and Winter Aves. $152,000.

Ind., Indianapolis—Schools—Bd. Educ. having plans prepared 2 story, 105 x 130 ft., Bloomington and Market Sts., $308,000; 2 story, 95 x 125 ft., Park Ave. and 17th Sts., $175,000; both brick. E. E. Dunlap & Co., 909 State Life Bldg., archt. for former. McGuire & Shook, 320 Pythian Bldlg., archt. for latter.

Ind., Laporte—Hotel—Hotel Rumley having plans prepared by C. H. Weatherhogg, archt., Citizens Trust Bldg., Ft. Wayne, 5 story, 80 x 125 ft., brick addition. $150,000.

Ind., Rockville—Sanitorium—Bd. Trustees Indiana State Sanitorium soon takes bids 2 story, 45 x 100 ft., brick. $150,000. Shourds-Stoner Co., 511 Tribune Bldg., Terre Haute, archts.

Ind., Terre Haute—College—Rose Polytechnic Institute, 13th and Locust Sts., having plans prepared by Stone & Webster, archts., 147 Milk St., Boston, Mass., 2 story, 95 x 165 ft., brick and stone. $228,000. H. Foltz, Lemcke Annex, Indianapolis, engr.

Ind., Terre Haute—Hospital—St. Anthonys Hospital, 1021 South 6th St., having plans prepared by J. G. Vrydaugh, archt., 1515 South 8th St., 4 story, brick addition on College Ave. $200,000.

Ind., Vernon—School—C. E. Dawson, trustee, North Vernon, having plans prepared by H. M. Griffin, archt. Connersville, 2 story, 84 x 125 ft., brick and tile. $150,000.

Ind., Warsaw—School—E. Smith, trustee, having plans prepared by Griffith & Goodrich, archts., 211 East Berry St., Ft. Wayne, 2 story, 86 x 111 ft., brick and terra cotta. $150,000.

Mich., Coldwater—Hospital—R. L. Wade, Fremont, Ind., plans 2 story, 72 x 110 ft. brick, here. $150,000. A. H. Ellwood & Son, Haynes Bldg., Elkhart, Ind., archts.

Mich., Detroit—Hotel and Store—E. Kline, c/o Kohner & Seeler, archts., 1402 Kresge Bldg., having plans prepared 4 story, 40 x 80 ft. brick and steel, plain foundation, Chene St. and Milwaukee Ave. $150,000.

Mich., Detroit—School—Bd. Educ. having plans prepared by Malcomson, Higginbotham & Palmer, archts., 405 Moffat Bldg., 2 story, rein.-con., brick and steel addition, plain foundation, Chapin Ave. $200,000.

Mich., Lansing—Temple—Masonic Temple Assn. having plans prepared by E. A. Bowd, archt., 127 West Allegan St., 7 story, 100 x 164 ft. rein.-con., brick, steel and stone, plain foundation, South Capitol Ave. $750,000.

Mich., Mt. Pleasant—Bank—Exch. Savings Bank having plans prepared by Hoggson Bros., archts. and engrs., 485 5th Ave., New York, 2 story, 50 x 80 ft. brick and stone addition, plain foundation. $140,000. A. E. Gorman, pres.

Ill., Chicago—Apartment—R. Levine, 133 West Washington St., having plans prepared and soon receives bids 3 story, 80 x 153 ft., rein.-con., brick and stone, on Northwest Side. $150,000. Whitney & Williams, 122 South Michigan Ave., archts.

Ill., Springfield—Apartment Hotel—Apartment Hotel Securities Co., c/o W. S. Troxell & Co., 5th and Capitol Sts., plans brick, steel, rein.-con. and stone, at 4th and Canedy Sts. $900,000. D. M. Newton, pres. Private plans.

Ill., Sterling—Store—Hardware Products Co., 201 4th Ave., plans 3 story, 50 x 142 ft., brick and mill construction. $150,000. A. W. Wheeler, pres. Architect not selected.

Wis., Madison—University of Wisconsin Y. M. C. A., 740 Langdon St., having plans prepared by J. R. and E. J. Law, archts., Strand Theatre, 4 story, 50 x 250 ft., brick, rein.-con. and steel, Langdon St. $150,000. Noted Nov. 24.

Wis., Milwaukee—School—St. Rose Congregation, 3007 Sycamore St., having preliminary plans prepared by A. C. Eschweiler, archt., 141 Wisconsin St., 3 story,

Buildings (Continued)

138 x 200 ft., brick and concrete, plain foundation, 30th and Clybourn Sts. $275,000.

Wis., Sparta—High School—School Bd. plans brick, tile and concrete, plain foundation. $250,000. S. D. Beebe, pres. Architect not selected.

Wis., Wausau—Hospital—D. L. Plumber Hospital, c/o L. A. Bradt, 1st Natl. Bank Bldg., having plans prepared by Berlin, Swern & Randall, archts., 19 South La Salle St., Chicago, 4 and 5 story, brick, rein.-con., steel and stone. $300,000.

Ia., Clear Lake—Club—Clear Lake Golf & Country Club, Ames & Sullivan, owners, having plans prepared by G. L. Lockhart, archts., 1353 University Ave., St. Paul, Minn., 4 story, 41 x 204 ft., brick, stucco and tile. $160,000.

Ia., Clear Lake—High School—Bd. Educ. having plans prepared by G. L. Lockhart, archt., 1353 University Ave., St. Paul, Minn., 2 story, rein.-con., brick, stone and tile. $150,000. R. Ingersoll, clk.

Ia., Clinton—Academy—Our Lady of Angels, c/o Sister M. Anastasius, plans brick, rein.-con. and stone. $250,000. Architect not selected.

Ia., Clinton—Cathedral—Clinton Consistory, c/o F. M. Howard, Merchants Natl. Bank Bldg., 514 South 2nd St., plans brick, stone, steel and rein.-con. $250,000. Architect not selected.

Ia., Clinton — Church — Congregational Church, 7th Ave. and 4th St., plans brick, steel, rein.-con. and stone. $150,000. Architect not selected.

Ia., Clinton—Theatre—Amuse-U Theatre Co., 326 Iowa Bldg., plans brick, steel and rein.-con., 4th St. $150,000. A. H. Blank, pres. Architect not selected.

Ia., Osceola—Hotel—W. H. Totten, c/o Iowa State Bank, plans 3 story, rein.-con., brick, stone and steel. $150,000. Architect not selected.

Minn., Minneapolis—Apartment—R. L. Harrington, 12 South 6th St., having plans prepared by A. Rose, archt., 500 Builders Exch. Bldg., 3 story, rein.-con., brick, tile and stone, 28th St. and Humboldt Ave., S. $150,000.

Kan., Independence — Memorial — Plans memorial building. $280,000. G. H. Krienhagen, city clk. Architect not selected.

Kan., Topeka—Club—Womens Club, c/o L. Munn, 315 Topeka Ave., having plans prepared by F. C. Squires, archt., 628 Kansas Ave., 3 story, 75 x 100 ft., brick and stone. $150,000.

Mo., Kansas City—Lodge and Office—Gate City Building Co., 924 Baltimore Ave., having plans prepared by Tarbet & Gornall, archts., 507 Republic Bldg., 5 story, 80 x 105 ft., rein.-con., steel, stone and terra cotta, near 31st and Troost Aves. $200,000.

Mo., St. Louis—Theatre—Aubert Photo Play Co., Title Guaranty Bldg., rejected bids brick, stone and terra cotta, Aubert and Easton Aves. $250,000. P. Klingenschmidt, 5086 Wells Ave., archt. Noted Nov. 3.

Col., Boulder—High School—Voted $404,000 bonds for high school. V. M. Smith, secy. Noted Nov. 17.

Wash., Seattle—Bank and Office—Dexter-Horton Estate, New York Blk., had plans prepared by J. Graham, archt., L. C. Smith Bldg., 13 story, 120 x 127 ft., brick and granite, 701 3rd Ave. $1,000,000. This structure will replace 3rd Ave. half of present New York Blk., and when completed a similar structure will replace present 2nd Ave. half of building.

Wash., Seattle—Office—Central Building Co. plans 2 story, 111 x 240 ft., steel, granite and terra cotta addition to present 8 story building, 3rd Ave. between Marion and Columbia Sts. Cost between $150,000 and $175,000. A. L. Hawley, mgr. Architect not selected.

Cal., Redwood City—High School—Sequoia Union High School Dist. having plans prepared by C. Werner and A. I. Coffey, archts., Humboldt Bank Bldg., San Francisco, 1 and 2 story, State Highway and Bway. $300,000.

Cal., Richmond—High School—Trustees of School Dist. take bids in January, 1 and 3 story, 216 x 321 ft., rein.-con. and tile, 9th St. and Bissell Ave. $200,000. J. T. Narbett, 910 Macdonald Ave., archt.

Cal., Sacramento—Bank and Office—Sacramento-San Joaquin Bank had plans prepared by Weeks & Day, archts. and engrs., Phelan Bldg., San Francisco, 18 story, Southeast 7th and K Sts. $1,250,000.

Cal., Sacramento—Capitol—State soon takes bids two 5 story, steel, granite and stone additions, concrete pile foundations. $3,000,000. Weeks & Day, Phelan Bldg., San Francisco, archts. and engrs.

Cal. San Jose—Hospital—San Jose Hospital Assn. takes bids about Jan. 5, 3 story, fireproof construction, East Santa Clara St. near 14th St. $175,000. Binder & Curtis, 255½ South 1st St., archts.

Cal., San Jose—Office—Commercial Club, 1st Natl. Bank Bldg., had prelminary plans prepared by Binder & Curtis, archts., 255½ South 1st St., 10 story, steel and concrete, South 1st St. between Santa Clara and San Fernando Sts. $400,000. W. J. Cross, secy.

Cal., San Mateo—Bathhouse—Pacific City, c/o N. Messer (promoter), Mills Bldg., San Francisco, having preliminary plans prepared by T. Edwards, archt., 833 Market St., San Francisco, 3,000 ft. bathhouse with enclosed plunge, auditorium, dance halls, café, board walk, etc., here. $1,000,000.

Ont., London—University—Bd. Governors Western University receives bids about March, three 2 and 4 story, brick and stone buildings, North London. $2,000,000. Prices wanted on all materials. S. Fox, dean. W. J. Brown, Western University, archt.

Ont., Toronto—Church—Bloor St. Baptist Church, Bloor and North Sts., plans 1 story, rein.-con., brick and steel, plain foundation, Yonge and Heath Sts. $200,000. Architect not selected.

BIDS DESIRED

Mass., Boston — Hospital — Dec. 20, by Supt. City Hospital, Harrison Ave., 2 story, 43 x 150 ft. and 43 x 107 ft. top addition, and two 6 story, 28 x 43 ft. and 40 x 43 ft. annexes, rein.-con., brick and steel, plain foundation, Harrison Ave. $475,000. Former contract cancelled. Noted Dec. 8.

Mass., Brookline—High School—Dec. 20, by School Bd., 3 story, 61 x 153 ft., with 85 x 89 ft. and 40 x 124 ft. wings, brick, Tappan Ave. $550,000. Kilham & Hopkins, 9 Park St., Boston, archts.

Mass, Stoughton—High School—Dec. 21, by School Bd., 3 story, 73 x 122 ft. brick, Pearl St. $190,000. C. G. Loring, 7 Water St., Boston, archt.

Conn., Norwich—Business—Disco Bros., 267 Main St., receiving bids 5 story, 54 x 130 ft. concrete, brick, steel and stone, plain foundation, Main St. $150,000. Cudworth & Thompson, Thayer Bldg., archts. Noted Nov. 3.

N. J., Secaucus (Weehawken P. O.)—Insane Asylum—Dec. 22, by Bd. Freeholders Hudson Co. (Jersey City), five 2 story, brick and steel buildings, incl. power house, here. $700,000. J. T. Rowland, Jr., 100 Sip Ave., Jersey City, archt.

Pa., Phila.—Church—Jan. 1, by C. J. Mitchell, archt., 129 North 5th St., 1 story, 132 x 156 ft. brick, steel and stone, plain foundation, for Diocese of Phila., c/o D. C. Dougherty, 1723 Race St. $250,000.

W. Va., Bluefield—Bank—A. B. Mahood, archt., L. & C. Bldg., receiving bids for structural steel for 7 story, 30 x 100 ft., rein.-con., stone, granite and steel. $175,000. Excavating contract to C. W. Hancock & Sons, 1st Natl. Bank Bldg., Lynchburg, Va. Noted May 26.

Tenn., Nashville — Dormitory — Peabody Teachers College, Peabody Campus, taking bids rein.-con. and brick, incl. 75 rooms, dining rooms and cafeteria. $150,000. H. C. Hibbs, 4th and 1st Natl. Bank Bldg., archt. Noted Sept. 22.

O., Cleveland — Commercial — W. S. Ferguson Co., archts., 1900 Euclid Ave., taking bids 2 story, 68 x 175 ft., brick, steel and concrete, plain foundation, 2500 Euclid Ave., for Twenty-Five Hundred Co., c/o M. Marmorstein, Natl. City Bank Bldg. $150,000.

Ill., Chicago—Store, Office and Hotel—R. F. France, archt., 155 North Clark St., receiving bids 3 story, 87 x 125 ft., rein.-con., brick and steel, Bway. and Berwyn Ave., for R. T. Davis, 133 West Washington St. $150,000.

Ill., Chicago—Apartment—Levy & Klein, archts., 111 West Washington St., receiving bids 3 story, 100 x 150 ft., rein.-con., brick and steel, Sheridan and Winthrop Aves., for A. Solar, c/o architects. $180,000.

Tex., Dallas—Hospital—Dec. 30, by M. G. James, city secy., three 3 story, 30 x 130 ft. wings, rein.-con., brick and terra cotta, Oak Lawn and Maple Aves. $300,000. H. M. Greene Co., North Texas Bldg., archts.

Ont., Hamilton—School—F. W. Warren, archt., Home Bank Bldg., receiving bids 2 story, 20 room, concrete, brick and steel, Main St., for Bd. Edu. $300,000. Noted Nov. 24.

BIDS RECEIVED

Mass., Everett—High School—Bd. Educ., 3 story, 176 x 203 ft. rein.-con. and brick, plain foundation, Bway., from F. G. Coburn, 294 Washington St., Boston, $425,500; J. Slotnick Co., 448 Bway., Chelsea (Boston P. O.), $438,640; C. S. Cunningham & Sons, 80 Boylston St., Boston, $459,400. Noted Sept. 22.

N. Y., Brooklyn—School—C. B. J. Snyder, supt. School Buildings of Bd. Educ., Municipal Bldg., New York, opened bids Dec. 7, P. S. 187, 12th Ave. between 64th and 65th Sts., here, from T. A. Clarke Co., 122 Livingston St., $543,600; Frymier & Hanna Co., 25 West 45th St., New York, $555,000; J. MacArthur Co., 220 Ormond Pl., $555,000; Putnam Constr. Co., Inc., 303 5th Ave., New York, $563,870. Noted Dec. 1.

N. Y., New York — Hall — Bd. Educ. opened bids Dec. 7, reconstructing, altering and repairing its hall, Park Ave. and 59th St., construction, from J. H. Goldblatt, 231 East 77th St., $142,100, G. Colon & Co., 81 East 125th St., $160.781, J. T. Brady & Co., 103 Park Ave., $167,000; sanitary work, from P. F. Kenney Sons, Inc., 33 Old Bway., $22,830, J. A. Graf, 394 Waverly Ave., Brooklyn, $27,487, J. J. Kenney Co., 220 West 20th St., $28,000.

N. Y., New York—School—C. B. J. Snyder, supt. School Buildings of Bd. Educ., Municipal Bldg., opened bids Dec. 7, alterations and additions to P. S. 41, Olinville Ave. and Magenta St., from M. T. Kelly Co., Inc., 33 Old Bway., $121,945; A. W. King & Co., 81 East 125th St., $127,229; J. T. Brady & Co., 103 Park Ave., $130,130. Noted Dec. 1.

Mich., Detroit — School — Bd. Educ., 2 story, rein.-con., brick and steel, plain foundation, Grand River Ave., from Cooper-Widenmann Constr. Co., 1430 Penobscot Bldg., $274,250, Culbertson & Kelly, 872 Milwaukee Ave., $276,017, J. Bollin Co., 1259 Book Bldg., $276,900; 2 story, rein.-con., brick, steel and stone addition, plain foundation, Ogden Ave., from Corrick Bros., 507 Owen Bldg., $173,737, Martin & Krausmann Co., 606 Woodward Ave., $174,850, Culbertson & Kelly, 872 Milwaukee Ave., $174,869. Noted Nov. 17.

Mich., Saginaw—School—Bd. Educ., 3 story, 177 x 292 ft. rein.-con., South Weadock Ave., from Realty Constr. Co., Flint, $499,785; Owens, Ames & Kimball, 42 Pearl St., Grand Rapids, $518,000; W. E. Wood, Ford Bldg., Detroit, $519,950. Noted Nov. 17.

CONTRACTS AWARDED

Mass., Roxbury (Boston P. O.)—School—Schoolhouse Comn., City Hall Annex, 2 story, 139 x 145 ft., rein.-con., brick, steel and stone, plain foundation, School St., to T. O'Connor Co., Cambridge, $283,000. Noted Dec. 8.

Conn., Hartford—Business—Estate of J. J. Goodwin, 36 Pearl St., 2½ story, 110 x 110 ft rein.-con., brick, steel and stone, plain foundation, Haynes St., to C. P. Waterman, Inc., 75 Pratt St. Noted Oct. 27.

Conn., West Hartford (Hartford P. O.)—High School—School Bd., 2 story, 68 x 113 ft. brick and steel, plain foundation, New Britain Ave., to D. O'Brien & Sons, Inc., 118 Asylum St., Hartford, $154,900.

N. Y., New York—Apartment—Hor-Beck Realty Co., 1170 Bway., 5 story, brick, steel and stone, plain foundation, Grand Concourse near 192nd St., by day labor. $165,000. H. Hurwitz, 1170 Bway., archt. and engr.

N. Y., New York—Apartments—Hudson Building Co., c/o Springsteen & Goldhammer, archts. and engrs., 32 Union Sq., two 5 story, 75 x 100 ft., brick, steel and stone, plain foundations, Edgecombe Ave., by day labor. $150,000 each.

N. Y., New York—Apartment and Hotel, etc.—Twenty One Twenty Bway. Corp., 471 4th Ave., 15 story, 60 x 150 ft., brick, steel and stone, plain foundation, Bway. and 74th St., to J. G. Siegel, 17 East 49th St., $1,400,000.

N. Y., New York—Restaurant and Office—Horn & Hardart Co., 600 West 50th St., 5 story, brick, steel and stone, plain foundation, 68 Trinity Pl., to P. J. Murphy, 405 Lexington Ave., $450,000.

N. J., Glassboro—Normal School—State Bd. Educ., State House, Trenton, general contract, 2 story, 185 x 268 ft., rein.-con., brick and steel, concrete pile foundation, here, to Pennsylvania Constr. & Eng. Co., 3840 Spring Garden St., Phila., $376,000; heating and ventilating equipment, to Du-Pont Eng. Co., Wilmington, Del., $47,270. Noted Nov. 24.

Buildings (Continued)

Pa., Phila.—Office—Atlantic Refining Co., 1'11 Chestnut St., 21 story, 117 x 138 ft., rein.-con., brick and steel, caisson foundation, Broad and Spruce Sts., to Metzger, Fisher & White, Otis Bldg., $2,000,000.

Pa., Warren—Church—Grace Methodist Episcopal Church, general contract for 1 story, 93 x 157 ft., Pennsylvania and Prospect Aves., to H. Shenk & Co., 132 7th St., Pittsburgh, $150,000.

D. C., Wash.—Embassy—J. B. Anderson, 2200 16th St., embassy building, Indiana limestone, to P. F. Gormley Co., Union Trust Bldg., $500,000. Noted Nov. 10.

D. C., Washington—School—Dist. Comrs., 509 Dist. Bldg., Wheatley School addition, to J. L. Parson, Jr., and G. Hyman, corner Morse St. and West Virginia Ave., $206,194. Noted Dec. 8.

La., New Orleans—Clubhouse—West End Country Club, brick and stucco clubhouse on Lake Pontchartrain, New Basin Canal and Meboirie Ridge, to J. Reiss, Carondelet Bldg., $150,000.

O., Akron—Hotel and Theatre—Akron Prospect Co., North Prospect St. (Commodore Perry Hotel), 10 story, 132 x 190 ft., brick, steel and concrete, plain foundation, East Market and Prospects Sts., to W. Dunbar Co., 8201 Cedar Ave., Cleveland, $2,000,000. Former contract rescinded. Noted July 7.

O., Bay Village—School—Bd. Educ., 2 story, 93 x 151 ft., brick, steel and concrete, plain foundation, to Clemmer & Johnson, 406-7 Metropolitan Bldg., Akron, $200,000. Noted July 7.

O., Canton—High School—Bd. Educ. 3 story, 144 x 226 ft., brick, steel and concrete, plain foundation, 6th St., to A. F. Wendling Co., Massillon, $431,000. Noted Nov. 24.

O., Cincinnati — Hotel — Gibson House Co., Walnut St. near 4th St., general contract, 14 story, 102 x 190 ft., brick, concrete and terra cotta, 5th and Walnut Sts., to Wells Bros. Constr. Co., 53 West Jackson Blvd., Chicago, $2,000,000.

O., Dayton — Apartment — Co-operative Corp., 811 U. B. Bldg., 3 story, rein.-con., brick and stone, Central and Plymouth Sts., to J. E. Lowes, Schwind Bldg., $180,000.

O., Norwood (Cincinnati P. O.) — Seminary—Kunz & Beck, archts., Carew Bldg., Cincinnati, 3 and 4 story, 232 x 354 ft., brick, steel and concrete, Norwood Heights, here, to Ferro Concrete Co., 3rd and Elm Sts., Cincinnati, for St. Marys Theological Seminary. $700,000.

O., Rocky River—Commercial and Apartment Hotel—Riverview Impvt. Co., c/o B. Little, 3751 Prospect Ave., Cleveland, 8 story, 55 x 340 ft., brick, steel and concrete, plain foundation, Detroit Rd., here, to Crowell & Little Constr. Co., 3751 Prospect Ave., Cleveland, $1,500,000.

Ind., Evansville—Hospital—St. Marys Hospital, 4 story, 44 x 117 ft., brick addition on Columbia St., to M. J. Hoffman Constr. Co., Furniture Bldg., $200,000.

Mich., Detroit—Theatre and Office—Martha Theatre Co., c/o P. R. Rossello, archt., Congress Bldg., 2 story, 100 x 154 ft. rein.-con., brick and steel, plain foundation, Jos. Campau Ave., to C. M. Ross, 858 Penobscot Bldg., $250,000.

Mich., Grosse Pointe Park (Detroit P. O.)—School—Dist. 1, Grosse Pointe Twp., 475 St. Clair Ave., Grosse Pointe, 2 story, rein.-con., brick and steel, plain foundation, St. Paul Ave., to F. R. Patterson Constr. Co., 1922 Ford Bldg., Detroit, $213,000. Noted Nov. 17.

Mich., Port Huron—Theatre—Port Huron Theatre Co., 2 story, 88 x 150 ft., rein.-con., brick and steel, plain foundation, Military St., to Charron & Riddell, Port Huron, $175,000. Noted Sept. 8.

Ill., Amboy—High School—J. N. Coleman, archt., 6257 St. Lawrence Ave., Chicago, 2 story, 107 x 189 ft. school, to C. H. Schank, 1329 South 6th St. Springfield, for Bd. Educ. $150,000. Noted Nov. 24.

Ill., Chicago—Apartment—J. S. Aroner & Co., archts., 25 East Jackson Blvd., 3 story, 100 x 150 ft., rein.-con., brick and steel, Le Clair and Washington Sts., to R. Sollit & Sons, 30 North La Salle St., $150,000. Owners name withheld.

Ill., Chicago—Office—Holabird & Roche, archts. 104 South Michigan Ave., 2 story, 118 x 125 x 192 ft., rein.-con., brick and stone, 1206-24 Lake Shore Dr., to Avery Brundage, 110 South Dearborn St., for Illinois Life Insurance Co., c/o architects. $500,000. Noted Nov. 3.

Ill., Chicago — Store and Office — D. S. Klafter, archt., 64 West Randolph St., 3 story, 85 x 105 ft., rein.-con., brick and stone, Michigan Ave. and Walton St., to H. Sjoblom, 1724 Grace St., $150,000, for Michigan Walton Bldg Corp., c/o architect. Noted Oct. 20.

Ill., Peoria — School — Bd. Educ., Genn Oak School, 2 story, 100 x 150 ft., to W. M. Allen Sons & Co., 929 Jefferson Bldg., $175,000. Noted Oct. 20.

Kan., Hays—Church and Dormitory—Hays Methodist Episcopal and Episcopal Congregation, c/o G. A. Baldwin, pastor, 2 story, to F. LaRosh, Dearfield, $200,000. Noted May 12.

Kan., Paola—School—Bd. Educ., c/o C. Ruff, secy., 2 story, 72 x 88 ft., brick, stone and rein.-con., to C. Petty, Paola, $175,000.

Wyo., Laramie—Office—J. P. Markley, Connor Hotel Bldg., 3 story, 72 x 132 ft. brick, steel and terra cotta, 3rd St. and Grand Ave., to R. R. Paine, 214 South 8th St., E., Salt Lake City, Utah. Noted Sept. 29.

Tex., Kerrville — Sanitorium — Bldg. Bd., Amer. Legion Memorial Sanitorium, Austin, 1 story infirmary, 1 story laundry, 2 story nurses home, boiler house, etc., brick, tile and concrete, to McKenzie Constr. Co., 606 Bedell Bldg., San Antonio, $270,400; conduits and tunnels for steam pipes, to Elder Constr. Co., Moore Bldg., San Antonio, $26,370; outside piping and boiler house, to J. L. Martin, 406 Congress Ave., Austin, $53,571. Noted Nov. 24.

Cal., Sacramento—Hospital—Bd. Supervs. Sacramento Co., to W. C. Keating, 1714 27th St., service and childrens ward, $122,850; infectious ward, $88,460; women's ward and men's medical word; $78,620; brick and tile.

Cal., San Francisco—School—Bd. Pub. Wks., 3 story, rein.-con. addition to Mission High School, 18th St. between Dolores and Church Sts., general contract to Mahoney Bros., Crocker Bldg., $196,300; heating and ventilating to J. Nelson, 517 6th St., $37,697. Noted Oct. 27.

Federal Government Work

PROPOSED WORK

Ga., Augusta — Hospital — Treas. Dept., Wash., D. C., plans U. S. Pub. Health Serv. Hospital, here.

Ala., Tuskegee—Hospital—Treas. Dept., Wash., D. C., plans U. S. Pub. Health Serv. Hospital, here.

Mo., Kansas City—Hospital—Treas. Dept., Wash., D. C., plans U. S. Pub. Health Serv. Hospital, here.

Mo., St. Louis—Hospital—Treas. Dept., Wash., D. C., plans U. S. Pub. Health Serv. Hospital, here.

BIDS DESIRED

N. Y., South Brooklyn (Brooklyn P. O.)—Dredging—Spec. 4560—Dec. 28, Bureau Yards and Docks, Navy Dept., Wash., D. C., dredging 35th St. pier and Main Basin, here. Noted Dec. 1.

Md., Annapolis — Deferrization Plant—Spec. 4539 — Dec. 28, Bureau Yards & Docks, Navy Dept., Wash., D. C., deferrizaion plant, here. Noted Oct. 27.

Minn., Duluth—Quarters—Spec. 4549—Jan. 4, Bureau Yards & Docks, Navy Dept., Wash. ,D. C., quarters at radio station, here. Noted Dec. 1.

Cal., San Diego—Gas, Water, etc.—Spec. 4559—Dec. 28, Bureau Yards & Docks, Navy Dept., Wash., D. C., gas, water, sewerage and electric distribution systems, here. Noted Dec. 1.

Cal., San Diego—Lighting System—Spec. 4526—Jan. 4, Bureau Yards & Docks, Navy Dept., Wash., D. C., street lighting system, here. Noted Dec. 1.

BIDS RECEIVED

Md., Baltimore — Lighting Plant, etc.—Dec. 27. Treas. Dept., Wash., D. C., lighting plant, wiring, etc., U. S. Quarantine Sta., here. J. A. Wetmore, acting superv. archt.

D. C., Wash.—Paving—Spec. 4542—Bureau Yards & Docks, Navy Dept., received bids concrete paving at Navy Yard, (1) work complete, from Cranford Paving Co., 2620 E St., (1) $13,311 (55 days), (2) $700, (3) $2,000, (4) $3,100; G. B. Mullin Co., 1296 Upshur St., N. W., (1) $14,241 (60 days), (2) $700, (3) $2,000, (4) $3,000; Corson & Gruman, Wash., (1) $14,990 (60 days), (2) $900, (3) $2,550, (3) $3,990. Noted Oct. 20.

Va., Norfolk—Dredging—Spec. 4553—Bureau Yards & Docks, Navy Dept., Wash., D. C., dredging at Navy Yard, here, from Fred E. Jones Dredging Co., Main and Atlantic Sts., (1) $0.16, (2) $0.16; Arundel Corp., Pier 2, Pratt St., Baltimore, Md., (2) $0.245; Morris & Cummings, 17 State St., New York, (1) $0.265, (3) $0.265. Noted Dec. 1.

N. C., Oteen—Changes to Services, etc.—Treas., Dept., Wash., D. C., changes to services, etc., in U. S. Pub. Health Serv. Hospital, here, from Ransom & Anderson, 136 Liberty St., New York, $19,890 (120 days); G. E. Eng. Co., 449 West 42nd St., New York, $23,960 (120 days); C. J. Gleason, 1526 Walton Way, Augusta, Ga., $24,645 (90 days). Noted Nov. 24.

Ky., Dawson Springs—Water Treating Plant—Dec. 19, Treas. Dept., Wash., D. C., water treating plant, at U. S. Pub. Health Serv. Hospital here. J. A. Wetmore, acting superv. archt.

Minn., Minneapolis—Parcel Post Office—Dec. 29, by R. H. Barclay and G. H. Drake, Post Office Inspectors, 219 Federal Bldg., 1 story, 50,000 sq.ft. floor space, brick and concrete, near main Post Office, 2nd Ave. S. and Washington Ave. $150,000. Federal Government invites proposals to erect above and lease to government for 20 years.

Okla., Tahlequah — Mess Hall — Dept. Interior, Office of Indian Affairs, Wash., D. C., mess hall, at Cherokee Orphan Training school, here, from W. L. Garner, Tahlequah, $31,000; A. M. Burns, Fayetteville, Ark., $31,340; Hillard & Pearce, 220 West 42nd St., New York, $45,000. Noted Oct. 20.

H. T., Pearl Harbor—Storehouse—Spec. 4504—Bureau Yards & Docks, Navy Dept., Wash., D. C., 1 story storehouse, at Naval Operating Base, here, (1) work complete, from W. F. Martin, 53 Franklin St., Rochester, N. Y., (1) $249,964 (280 days), (2) $244,984, (3) $253,814, (4) $251,164, (5) add $22, (6) deduct $10,180, (6a) $21,240, (6b) $21,420, (6c) $10,180, (7) $6,685, (7a) $7,181, (7b) $7,185, (7c) $6,685, (8) deduct $310, (9) $135, (10) $1,460; Hawaiian Contg. Co., 854 Kaahumanu St., Honolulu, (2) $250,000 (250 days), (3) $20, (5) $15,000, (6) $200, (7) $25, (8) $500, telegraphic modification, (2) add $32,205, (3) $250, (5) $6,223, (6) deduct $178, (7) add $61, (8) $396; J. L. Young Eng. Co., Campbell Bldg., Honolulu, (1) $268,572, (2) $252,942, (3) $274,937, (4) $269,850, (5) $14, (6) deduct $8,263, $19,622, $19,328, $11,357, (7) $7,352, (7a) $6,769, (7b) $7,522, (7c) $7,392, (8) $350, (9) $55, (10) $1,622, telegraphic modification, (1) add $8,000, (2) $8,000, (3) $8,000, (4) $8,000, (6) deduct $2,000 a, b, c, (7) deduct $2,000 from a, b, and c, (8) add $1,500. Noted Oct. 6.

CONTRACTS AWARDED

N. Y., Brooklyn — Alterations — Spec. 4554—Bureau Yards & Docks, Navy Dept., Wash., D. C., alterations to contagious disease buildings, at U. S. Naval Hospital, here, to Estate of J. Bauer, 388 Wallabout St., $4,968 (30 days). Noted Nov. 17.

N. Y., New York — Mailing Vestibule — Treas. Dept., Wash., D. C., mailing vestibule, U. S. Post Office, here, to Hillard Pearce, 220 West 42nd St., $12,718.

Md., Baltimore—Dredging—U. S. Engineer, dredging in harbor, here, to E. Breymann, 17 Battery Pl., New York, $141,625. Noted Nov. 3.

O., Cincinnati—Lock Gates—U. S. Engineer, 2nd Dist., steel lock gates for Locks 30 and 32, Ohio River, to Amer. Bridge Co., 1304 Union Trust Bldg., $65,394. Noted Dec. 1.

O., Dayton — Home — Bd. Mgrs., Natl. Home for Disabled Volunteer Soldiers, 2 story, with five wings, brick, steel and concrete, here, to Davis-Hunt Constr. Co., 907 Schwind Bldg., $704,908. Noted Dec. 8.

Wash., Walla Walla—Mechanical Equipment—Treas. Dept., Wash., D. C., mechanical equipment, U. S. Pub. Health Serv. Hospital, here, to Bergh-Griggs Co., 936 Commerce St., Tacoma, $121,375. Noted Dec. 8.

Cal., Los Angeles — Dredging — Dist. Engr., dredging 2,000 ft., here, to United Dredging Co., Central Bldg., $37,340. Noted Sept. 8.

Cal., San Diego—Dredging Plant—U. S Engineer, hire and operation of dredging plant, to Olympian Dredging Co., 249 1st Ave., San Francisco, $125,000.

FEDERAL POWER COMMISSION

Applications for licenses and permits.

Applications

261. J. H. Hughes, 405 Sharon Bldg., 55 New Montgomery St., San Francisco, Cal.—Wants permit for small diversion dam, ditch and 1½ mi. pipe line to power house on French Creek, near North Fork of Feather River, Butte Co.

262. R. H. Hardaway, 1508 3rd Ave., Columbus, Ga.—Wants permit for 40 ft. dam and power house in Choctawhatchee River, near Geneva, Ala.

263. W. J. Barker, c/o W. H. Ellis, 504 Southern Bldg., Wash., D. C.—Wants permit for dam in Grand River, near Kremling, Grand Co., Col. Project includes reservoir, 1,030,000 acre feet capacity, and

Federal Government Work (Continued)

tunnel to power house, developing 57,000 hp.

264. Northwestern Electric Co., Pittock Blk., Portland, Ore.—Wants permit for 3 developments on North Fork of Lewis River, Clarke and Cowlitz Counties, Wash., as follows: Swift Creek Unit, dam, incl. reservoir and 10 mi. canal to power house near Swift Creek; Cougar Creek Unit, diversion dam, 6½ mi. conduit and power house; Condit Site, power house, reservoir and dam. Total development 60,000 primary hp.

265. G. P. Mohler, P. O. Box 516, Needles, Ariz.—Wants permit for series of dams, in Colorado River, Mohave Co., Ariz. and Clark Co., Nev., beginning at lower end of Pyramid Canyon and extending to Boulder Canyon.

266. B. H. Hardaway, 1508 3rd Ave., Columbus, Ga.—Wants permit for power house and 40 ft. dam, in Pea River.

267. A. E. Killebrew, Newton, Dale Co., Ala.—Wants permit for power house and 80 ft. dam in Choctawhatchee River near Newton.

Miscellaneous

PROPOSED WORK

Dock, Canal, etc.—Hartford, Conn.—Bd. Water Comrs. having plans prepared for work in connection with South Meadows development, incl. docks, canals, drainage system, etc. Fay, Spofford & Thorndike, 15 Beacon St., Boston, Mass., engrs.

Baseball Park—Buffalo, N. Y.—Buffalo Baseball Club, 101 East Ferry St., plans rein.-con. and steel grandstand, stores and offices. $300,000. S. L. Robertson, 155 Pearl St., pres.

Piers—Baltimore, Md.—Plans 2 piers on McComas St., 1,200 ft. long, 250 ft. wide, with 300 ft. berth for ships between each one. Cost of group together with railroad yards and track facilities about $50,000,000. To be leased to Western Maryland Ry. Co. J. E. Greiner, chn. Port Development Comn. B. Hill, City Hall, engr.

Stadium—Baltimore, Md.—Varsity Club, Johns Hopkins University, Homewood Ave., plans rein.-con. stadium to seat 50,000, $300,000. Architect not appointed.

Seawall, etc.—West Palm Beach, Fla.—Dec. 27, to vote on $50,000 bonds for seawall and fill around part Lake Worth. K. D. Riddle, city mgr.

Swimming Pool, etc.—Nashville, Tenn.—Cascade Corp. making plans 84 x 220 ft. concrete swimming pool, showers, dressing rooms, athletic equipment, etc. $100,000. S. M. McMurray Eng. Co., 4th and 1st Natl. Bank Bldg., engrs.

Underground Wiring—Lima, O.—Passed Ordinance requiring all Electric Light, Telephone and Telegraph Companies to remove certain poles and place certain wiring underground within a year. $1,000,000. F. A. Burkhardt, mayor.

Stadium—South Bend, Ind.—Notre Dame University plans concrete and steel stadium. $500,000. Architect not selected.

Road Machinery—Antigo, Wis.—Langlade Co. appropriated $10,000 for road machinery. C. Olsen, comr.

Road Machinery—Balsam Lake, Wis.—Polk Co. appropriated $8,000 for road machinery. C. W. Nystrom, comr.

Road Machinery—Baraboo, Wis.—Sauk Co. appropriated $10,000 for road machinery, incl. 2 crushers, tractor, small graders. E. H. Groth, comr.

Tractor, etc.—Black River Falls, Wis.—Jackson Co. voted $3,500 for tractor and large grader. W. Tibbitts, comr.

Road Machinery—Chilton, Wis.—Calumet Co. appropriated $4,000 for road machinery. W. Hoenig, comr.

Road Machinery—Crandon, Wis.—Forest Co. appropriated $5,000 for road machinery. F. J. Rogers, comr.

Road Machinery — Grantsburg, Wis.—Burnett Co. appropriated $1,000 for road machinery, incl. patrol graders and gravel loader. G. E. Miller, Webster, comr.

Road Machinery — Hurley, Wis. — Iron Co. appropriated $10,000 for road machinery, incl. 3 trucks. F. B. Goodman, comr.

Road Machinery—Juneau, Wis.—Dodge Co. appropriated $5,000 for road machinery, incl. crushing outfit. E. T. Klug, comr.,

Road Machinery, etc.—Kenosha, Wis.—Kenosha Co. appropriated $20,000 for road machinery, incl. 1 truck, large grader and cement mixer. J. F. Herzog, comr.

Road Machinery, etc.—Manitowoc, Wis.——Manitowoc Co. appropriated $19,000 for road machinery, incl. 2 tractors, 2 trucks and 3 small graders. J. Connell, comr.

Road Machinery — Mauston, Wis. — Juneau Co. appropriated $1,600 for road machinery. A. V. Robison, comr.

Road Machinery — Menomonie, Wis.—Dunn Co. appropriated $3,000 for road machinery. F. Stewart, comr.

Road Machinery—Monroe, Wis.—Green Co. appropriated $35,000 for road machinery. C. J. Smith, comr.

Road Machinery—Racine, Wis.—Racine Co. appropriated $10,000 for road machinery, incl. small truck and concrete mixer. W. A. Bechthold, comr.

Patrol Graders — Rhinelander, Wis.—Oneida Co. appropriated $5,000 for patrol graders. B. L. Horr, comr.

Transmission Line — Shawano, Wis.—North Wisconsin Power Co., c/o J. B. Read, University of Wisconsin, University Ave., Madison, making plans electric transmission line from here to Stiles Junction, incl. 40 mi. 66,000 volt primary and 46 mi. 13,000 volt intermediary. $200,000. J. S. Allen, Madison, engr.

Road Machinery—Sparta, Wis.—Monroe Co. appropriated $10,000 for road machinery. C. H. Millard, comr.

Road Machinery—Washburn, Wis.—Bayfield Co. appropriated $10,000 for road machinery, incl. 1 truck, large grader and possibly tractor. J. Friberg, comr.

Road Machinery — Waukesha, Wis.—Waukesha Co. appropriated $16,400 for road machinery. C. J. Hahn, comr.

Rotary Snow Plow, etc.—Waukesha, Wis.—Waukesha Co., appropriated $10,000 and soon takes bids rotary snow plow and other machines and equipment for removing snow. C. J. Hahn, Delafield, engr.

Road Machinery—Waupaca, Wis.—Waupaca Co. appropriated $20,000 for road machinery. J. Huffcut, comr.

Transmission Line—Carrington, N. D.—To vote on $50,000 bonds, high tension transmission line from here to central plant at New Rockford. C. C. Carnahan, clk.

Trenching Machine—San Francisco, Cal.—Schultz Constr. Co., 46 Kearny St., will be in the market in about one month for trenching machine for working at 12 and 15 ft. depths.

Gas Line—Belmont, Ont.—Progressive Oil & Gas Co., Imperial Bldg., Hamilton, plans gas mains from here to point near London. $30,000. Prices wanted on drilling supplies, piping, etc.

Hydro Electric System—London, Ont.—Ontario Power Comn. plans hydro system in towns of Tara, Port Elgin, Southhampton and Paisley. $100,000. Address A. Beck, 169 Albert St., chn.

Electric Lighting and Power System—Londesboro, Ont.—Hullet Twp. plans electric lighting and power distribution system. $40,000. Address J. Fingland, Londesboro.

Electric Light and Power System—St. Marys, Ont.—Blanshard Twp. plans electric light and power distribution system. $40,000. Address J. H. Jameson, St. Marys. Engineer not selected.

Road Machinery—Saulte Ste. Marie, Ont.—Plans to purchase road machinery, incl. rock crusher, screens, elevator, stone bins, trucks, scrapers, scarifier, pressure oil spray and dump wagons. $18,000.

Electric Lighting and Power System—Thedford, Ont.—Bosanquet Twp. plans electric lighting and power distribution system. $30,000. J. N. Wilson, 190 University Ave., Toronto, engr.

Electrification of Railway Yards—Windsor, Ont.—Grand Trunk Ry., London, plans electrification of railway yards, here. Address, C. Forrestly, London, div. engr.

BIDS DESIRED

Seawall—Portland, Me.—Dec. 29, by Directors Port of Portland, 67 Commercial St., seawall, incl. removing structures, dredging, filling, etc. Fay, Spofford & Thorndike, 15 Beacon St., Boston, Mass., engrs.; adv. this issue.

Concrete Mixer, etc.—Buffalo, N. Y.—G. Parks & Sons Co., Inc., 217 15th St., in market for ½ yd. concrete mixer and 1 orange peel bucket for unloading gravel.

Cranes, etc.—Stapleton, S. I., N. Y.—Dec. 21, by M. Hulbert, comr. Docks, Pier "A," foot of Battery Pl., New York, installing and putting into successful operation, cranes, elevators, electric power transmission and steam heating plants, on Piers 12 and 13, here, Contr. 1686. Former bids rejected. Noted Oct. 13.

Power Shovels—New Orleans, La.—Dec. 22, by Bd. Port Comrs., automatic power shovels, etc. H. M. Gallagher, 1 Canal St., ch. engr.; adv. this issue.

Shed—New Orleans, La—Dec. 22, by Bd Port Comrs., shed at Congress St. landing. R. S. Hecht, pres.; adv. this issue.

Road Machinery, etc.—Madison, Wis.—Dane Co., c/o E. J. Smith, Court House, receiving bids road machinery also machinery for gravel pit at Edgerton, incl. bucket conveyors, scoops, etc.

Turbo-Generator—Lincoln, Neb.—Jan. 4, by T. H. Berg, city clk., furnishing and erecting on foundations furnished by city one 2,500 kw. turbo-generator with surface condenser and switchboard complete, at city water and electric light plant, $75,000. G. W. Bates, city engr.

Distribution System—Watertown, S. D.—Jan. 12, Public Utilities Comn., complete distribution system, street and commercial wiring. $40,000. A. J. Mueller, supt. electric light plant.

Transit Shed—Tacoma, Wash.—Dec. 29, by Port of Tacoma 180 x 1,040 ft. concrete and tile transit shed. E. Kloss, secy. Noted Dec. 8.

Cement and Steel—Modesto, Cal.—Dec. 23, by Dirs. of Turlock and Modesto Irrigation Dists., 50,000-200,000 bbl. portland cement, f.o.b. factory, delivery at rate of 25,000 bbl. per month commencing January, 1922; 20,000 lb. 1¼ in. sq., 90,000 lb. ⅞ in. and 154,000 lb. ½ in. deformed steel reinforcing bars, f.o.b. cars San Francisco. P. Jones, ch. engr. Modesto Dist. R. V. Meikle, ch. engr. Turlock Dist.

Electroliers—Redwood City, Cal.—Jan. 3, by City Trustees, installing 53 electroliers, 9,600 lin.ft. 1¼ in. conduit and 9,600 lin.ft 2 conduit cable. C. L. Dimmitt, 1st Natl. Bank Bldg., engr.

Railway Material—San Francisco, Cal.—Jan. 4, by Bd. Pub. Wks., furnishing and delivering under Sect. A, 820 ton 9 in. girder rail, 1,600 pair joint plates, 150 kegs track bolts; Sect. B, 200 kegs spikes, 30,000 tie plates; Sect. C, 3,000 tie rods, Contr. 127, Municipal Ry. System. M. M. O'Shaughnessy, city engr.

Ties—San Francisco, Cal.—Dec. 21, by Bd. Pub. Wks., 20,000 r.w. or cedar ties, delivered at Municipal Pipe Yard, 6th and Hubbell Sts., Contr. 126, Municipal Ry. System. M. M. O'Shaughnessy, city engr.

BIDS RECEIVED

Dredge Repair—New York, N. Y.—Dept. Docks & Ferries, Pier "A" North River, opened bids Dec. 12, for repairs to dredge "Grabit," from Standard Shipbuilding Corp., 27 Pearl St., $28,000; Verdun & Co., $28,862; J. Shewan & Son, 32 Bway., $28,950. Noted Dec. 8.

Pier—New York, N. Y.—Commissioner of Docks & Ferries, Pier "A" North River, opened bids Dec. 12, new pier at foot of 44th St., North River, Contr. 1736, from G. B. Sperin, Inc., 90 West St., $363,565; H. Steers, Inc., 17 Battery Pl., $365,024; A. M. Hazell, Inc., 26 Cortlandt St., $379,945. Noted Dec. 8.

Paving Material—Pensacola, Fla.—Furnishing material for paving ¾ mi. West Garden St., from W. J. Berry 110 North Alacaniz St., gravel $2.70 per cu.yd.; W. R. Taylor, 229 East Garden St., sand, $1.80 per cu.yd., cement, $3 per bbl., J. Gerkins, 800 North Hayne St., reinforced steel $0.13½ per sq.yd.; R. Taylor, 233 East Garden St., hauling sand, $0.40 per cu.yd., hauling cement, $0.06 per bbl.

CONTRACTS AWARDED

Grandstand—Wash., D. C.—Washington Baseball Club, 7th and Florida Ave., N. W., steel and concrete addition to grandstand, to G. A. Fuller Co., Munsey Bldg., $150,000.

Granite Coping—Wash., D. C.—Bd. Pub. Bldgs. and Grounds, c/o C. O. Sherrill, 1729 New York Ave., granite coping for reflecting pool, Lincoln Memorial, West Potomac Park, to North Carolina Granite Corp., Mt. Airy, N. C., $51,857. Noted Sept. 29.

Coal Trestle— Orient, O. — Dept. Pub. Welfare, Columbus, coal trestle and railroad siding, at Institution for Feeble Minded, here, to Grant-Boulton Co., Central Natl. Bank Bldg., Columbus, $19,270. Noted Dec. 8.

Grain Elevator—Chester, Ill.—H. C. Cole Milling Co., concrete grain elevator, 300,000 bu. capacity, to R. C. Stone Constr. Co., Chester, $200,000. Noted Dec. 1.

Dock — Allouez, Wis. — Great Northern Ry. Co., Railway Bldg., St. Paul, Minn., razing Great Northern Ore Dock 2, on Allouez Bay, to Stack Constr. Co., 306 Sellwood Bldg., Duluth, Minn., $100,000. Noted Dec. 3 under "Superior."

Transmission Line—Arena, Wis.—Wisconsin River Power Co., Gay Bldg., Madison, will build 18 mi. electric transmission line from here to Spring Green, by day labor. $25,000.

OFFICIAL PROPOSALS

Bids: Dec. 20.

Combined Sewer for Red Run District

Warren, Ohio.

Sealed bids will be received by the Director of Public Service of the City of Warren, State of Ohio, at the office of the Board of Control, until twelve o'clock noon, Central Standard Time, on December 20, 1921, for furnishing the necessary labor and materials and for constructing approximately 8,800 linear feet of combined sewer, between 72" and 120" in diameter, with 415 linear feet of 36" diameter cast iron pipe outfall line, and appurtenances complete, beginning at the Mahoning River near the mouth of the Red Run, and terminating near the intersection of Dana Avenue and Hughes Road, according to plans and specifications on file in the office of the City Engineer and in the office of the Consulting Engineer, Alexander Potter, 50 Church Street, New York City.

Bidders will submit separate and distinct proposals for furnishing materials or labor or both, in accordance with the laws of the State of Ohio, governing the award of contracts for public works. The work will be let in three sections. Each bid must contain the full name of every person or company interested in the same, and be accompanied by a bond or a certified check on some solvent bank, in the sum of five per cent (5%) of the total bid, but in no event less than Five Thousand Dollars ($5,000.00), to the satisfaction of the Director, as a guarantee that if the bid is accepted a contract will be entered into and its performance properly secured. Should any bid be rejected, such check or bond will be forthwith returned to the bidder, and should any bid be accepted such check or bond will be returned upon the proper execution and signing of the contract.

Plans and specifications may be seen at the office of the City Engineer, Warren, Ohio, or at the office of Alexander Potter, Consulting Engineer, 50 Church Street, New York City. Copies of plans and specifications may be obtained from the former on payment of, $10.00 which will not be refunded.

Bidders are required to use the form furnished by the City in submitting bids upon this work.

The right is reserved to reject any and all bids.

E. H. BRAUNBERNS,
Director of Public Service.
GEORGE T. HECKLINGER,
City Clerk.

Bids: Dec. 22.

Power Shovels, etc

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans, at their office, suite 200 New Orleans Court Building, 7:30 P.M., December 22nd, 1921, and then publicly opened for the furnishing of Automatic Power Shovels and other equipment as shown and specified, for use at the Coal Handling Plant.

A deposit of $300.00 (Three Hundred Dollars) in cash or certified check is required with proposal.

Bond of 50% of bid is required with Notarial Contract.

Payment, 90% of the bid for material will be paid upon delivery and acceptance of same on the site. The balance will be paid 20 days after the shovels and other equipment have been placed in operation and has been satisfactory to the Chief Engineer of the Board.

Proposals must be submitted on a special proposal form prepared by the Board.

Plans and specifications and proposal forms are on file in the office of Mr. H. M. Gallagher, Chief Engineer, No. 1 Canal Street, by whom full sets will be furnished to prospective bidders.

The right is reserved to reject any or all bids and to waive informalities.

R. S. HECHT,
President.
J. F. FINKE, JR.,
Secretary.

These Advertisements

are official notices that bids are wanted from other than local bidders.

Maximum competition is desired, and this is assured through Engineering News-Record's large NATIONAL circulation, reaching almost every contractor, dealer, and manufacturer in the country interested in bidding on public work contracts. It is the DOMINANT MEDIUM for advertising contracts for work, material, and supplies for towns, cities, counties, state and government departments, and private organizations.

Official Proposals reaching our New York Office by 10 A. M., Tuesday can usually be printed in the issue out Thursday.

Rate: 40 cents a line an insertion.

Bids: Dec. 27.

Auto Service Station

Trenton, N. J.

Notice is hereby given that sealed bids will be received by the State Highway Commission of New Jersey for the following:

For the construction of an Auto Service Station for the New Jersey State Highway Department at Fernwood, in the Township of Ewing, County of Mercer and State of New Jersey.

The Service Station will be a one story steel and brick structure, outside dimension 404′ x 106′, 25′ 9″ high. This contract shall be exclusive of hearing, plumbing, electric lighting and wiring, sprinkling system and foundations.

Bids for the above will be received at the office of the State Highway Commission, Broad St. Bank Building, Trenton, N. J., on December 27th, 1921, at 11:00 A.M., and opened and read immediately thereafter.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and office of Charles A. Mead, Bridge Engineer, 790 Broad St., Newark, N. J., and may be inspected by prospective bidders. Plans will be furnished on deposit of ten ($10.00) dollars, for this Auto Service Station upon application to A. Lee Grover, Chief Clerk, 901 Broad St. Bank Bldg., Trenton, or Charles A. Mead, Bridge Engineer, 790 Broad St., Newark. Bids must be made on the standard proposal forms in the manner designated therein and as required by the specifications for this work; same to be enclosed in sealed special addressed envelopes bearing the name and address of bidder and the work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the State Treasurer for not less than ten (10%) per cent of the amount of the bid, provided that said certified check shall not be less than $500.00 nor more than $20,000.00 and be delivered at the above place on or before the hour named. Copies of the standard proposal form and special addressed envelope will be furnished on application to A. Lee Grover, Chief Clerk, 901 Broad St. Bank Bldg., or to Charles A. Mead, Bridge Engineer, 790 Broad St., Newark, N. J. Bids not enclosed in special envelope will be considered informal and will not be opened.

Each bidder must accompany his bid with a certificate from a surety company duly authorized to do business in this State, stating that such surety company will provide said bidder with a bond in such sum as is required in and in accordance with the specifications conditioned for the faithful performance of the provisions of the contract and specifications.

By order of the State Highway Commission.

A. LEE GROVER,
Chief Clerk.

Bids: Jan. 13.

Sewage Disposal Plant

Milwaukee, Wis.

Sealed proposals for the construction of a Sewage Disposal Plant will be received by the Sewerage Commission of said city at its offices in the City Hall until 1:30 o'clock P.M. of the 13th day of January, 1922, at which time and place during the session of said Commission, they will be publicly opened and read.

The work to be done embraces the construction of the main portion of the Sewage Disposal Plant, consisting of aeration and sedimentation tanks, galleries, conduits, superstructures, piping and all appurtenances connected therewith. The approximate yardage of concrete is 61,500, with 5,000 tons of reinforcing steel to be placed and a large amount of miscellaneous piping.

The time allowed for the completion of the contract shall be eighteen (18) months from the date of the notice of the engineer to begin the work.

The liquidated damages for not completing the work within the time specified shall be One Hundred ($100.00) Dollars for each day in excess thereof.

Each proposal submitted must be accompanied by a cash deposit or certified check drawn to the order of the Sewerage Commission of the City of Milwaukee, to the amount of Twenty-five Thousand ($25,000.00) Dollars.

Specifications and blank forms of proposals can be obtained and detail plans examined at the offices of the Sewerage Commission. A full set of plans and a copy of the specifications will be sent to any contractor upon the receipt of Twenty-five ($25.00) Dollars, which amount will be refunded upon the return of the plans in good condition, provided such return is made on or before the expiration of 30 days after the date of receiving bids.

The Sewerage Commission reserves the right to reject any and all proposals submitted.

JOHN H. FOWLES,
Secretary.

Countersigned:
LOUIS M. KOTECKI,
City Comptroller.

Bids: Dec. 22.

Steel Structure

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, suite 200 New Orleans Court Building, until Thursday, December 22nd at 7:30 P.M., and then publicly opened for furnishing, erecting and painting structural steel for shed at the Congress Street Landing. (Approximately 200 tons.)

A deposit of $1,000.00 in cash or certified check is required with each proposal.

A bond to the amount of 50% of the sum bid is required with notarial contract.

Plans, specifications and proposal form are on file in the office of the Chief Engineer at No. 1 Canal Street, New Orleans, La. Complete sets will be furnished to prospective bidders on deposit of $10.00, which will be refunded to depositors who submit proposals or return sets in good condition.

The right is reserved to accept any or reject all bids and to waive informalities.

R. S. HECHT,
President.
J. F. FINKE, JR.,
Secretary.

Bids: Dec. 23.

Tanks and Boilers

New Orleans, La.

Separate sealed proposals will be received by the Sewerage and Water Board of New Orleans, up to noon Friday, Dec. 23, 1921, for Two 55,000 bbl. oil tanks, and 1,500-1,800 hp. Water Tube Boilers.

A. G. MOFFAT,
Secretary.

GEORGE G. EARL,
General Superintendent.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Dec. 27	Walla Walla, Wash.	Dec. 8
Dec. 27	Morris, Minn.	Dec. 15
Dec. 27	Winona, Minn.	Dec. 15
Dec. 27	St. Paul, Minn.	Dec. 22
Dec. 28	Syracuse, N. Y.	Dec. 22
Dec. 29	Greenburgh, N. Y.	Dec. 22
	Adv. Dec. 22.	
Jan. 11	Central Islip, N. Y.	Dec. 22
	Adv. Dec. 22.	

SEWERS

Dec. 28	New York, N. Y.	Dec. 22
Dec. 29	New York N. Y.	Dec. 22
Jan. 2	Marceline, Mo.	Dec. 15
Jan. 3	Indianapolis, Ind.	Dec. 22
Jan. 4	Appleton, Wis.	Dec. 15
Jan. 4	Dearborn, Mich.	Dec. 22
	Adv. Dec. 22.	
Jan. 7	Streator, Ill.	Dec. 22
	Adv. Dec. 22.	
Jan. 13	Milwaukee, Wis.	Dec. 8
	Adv. Dec. 8 to 22.	

WASTE DISPOSAL

Jan. 4	New Orleans La.	Dec. 22
	Adv. Dec. 15 and 22.	

BRIDGES

Jan. 10	Lake Charles, La.	Dec. 15
	Adv. Dec. 15 and 22.	

RAILWAYS

Jan. 9	Ontario	Dec. 15

EXCAVATION AND DREDGING

Dec. 27	New York, N. Y.	Dec. 22
Jan. 4	Belzoni, Miss.	Dec. 15
	Adv. Dec. 15 and 22.	
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Dec. 27	Algona, Ia.	Dec. 15
Dec. 27	Wichita, Kan.	Dec. 22
Dec. 29	New York, N. Y.	Dec. 22
Dec. 30	Moundsville, W. Va.	Dec. 15
Dec. 30	Athens, Ala.	Dec. 22
	Adv. Dec. 22.	
Dec. 30	Laurel, Miss.	Dec. 22
	Adv. Dec. 15 and 22.	
Dec. 31	Halifax, N. C.	Dec. 22
Jan. 2	Petersburg, Ind.	Dec. 22
Jan. 3	Stockton, Cal.	Dec. 15
Jan. 3	Lewisburg, W. Va.	Dec. 22
	Adv. Dec. 22.	
Jan. 3	Akron, O.	Dec. 22
Jan. 3	San Luis Obispo, Cal.	Dec. 22
Jan. 3	Jacksonville, Fla.	Dec. 22
Jan. 4	Florida	Dec. 15
Jan. 5	Florida	Dec. 15
Jan. 10	Palatka, Fla.	Dec. 22
Jan. 31	Lake Wales, Fla.	Dec. 22
	Adv. Dec. 22.	

INDUSTRIAL WORKS

Dec. 27	Fernwood (Trenton P. O.), N. J.	Dec. 15
	Adv. Dec. 15 and 22.	
Dec. 27	Worcester, Mass.	Dec. 22
Dec. 31	West New York, N. J.	Dec. 22
Jan. 2	Pleasantville, N. J.	Dec. 22
Jan. 3	Phila., Pa.	Dec. 22
Jan. 11	Middletown, N. Y.	Dec. 22
	Adv. Dec. 22.	
Jan. 15	Corning, Ia.	Dec. 15
Jan. 19	Fargo, N. D.	Dec. 22

BUILDINGS

Bids Close		See Eng. News-Record
Dec. 27	Petaluma, Cal.	Dec. 8
Dec. 27	Dayton, O.	Dec. 22
Dec. 27	Elyria, O.	Dec. 22
Dec. 28	Flint, Mich.	Dec. 8
Dec. 28	Phila., Pa.	Dec. 22
Dec. 29	Columbus, O.	Dec. 8
Dec. 30	Dallas, Tex.	Dec. 15
Dec. 31	Warsaw, Ind.	Dec. 22
Jan. 1	Detroit, Mich.	Nov. 17
Jan. 1	Phila., Pa.	Dec. 15
Jan. 3	Butler, Ind.	Dec. 22
Jan. 5	Cookeville, Tenn.	Dec. 22
Jan. [illegible]	Harrisburg, Pa.	Dec. 22
Jan. 10	Marathon, Wis.	Dec. 22
Jan. 10	Manitowoc, Wis.	Dec. 22
Jan. 17	Newcastle, Ind.	Dec. 22
Jan. 17	Institute (Sturgeon Bay P. O.), Wis.	Dec. 22
Jan. 18	Grand Rapids, Mich.	Dec. 22
	Adv. Dec. 22.	
Jan. 24	Grand Rapids, Mich.	Dec. 22
	Adv. Dec. 22.	
Jan. 24	Madison, Wis.	Dec. 22
Jan. 30	Grand Rapids, Mich.	Dec. 22
	Adv. Dec. 22.	
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27

FEDERAL GOVERNMENT WORK

Dec. 27	Lighting Plant, etc.—Baltimore, Md.	Dec. 15
Dec. 28	Deferrization Plant—Annapolis Md.	Dec. 15
	Adv. Dec. 15 and 22.	
Dec. 28	Gas, Water, etc.—San Diego, Cal.	Dec. 15
Dec. 28	Dredging—South Brooklyn, (Brooklyn P. O.), N. Y.	Dec. 15
Dec. 28	Valve—Denver, Col.	Nov. 17
Dec. 29	Parcel Post Office—Minneapolis, Minn.	Dec. 15
Dec. 29	Structures—Savage, Mont.	Nov. 17
Jan. 3	Extension to Power House—Chicago, Ill.	Dec. 22
Jan. 4	Lighting System—San Diego, Cal.	Dec. 15
Jan. 4	Quarters—Duluth, Minn.	Dec. 15
Jan. 12	Distribution System — Watertown, S. D.	Dec. 15
Jan. 12	Dredging, etc.—Jacksonville, Fla.	Dec. 22
	Adv. Dec. 15 and 22.	
Jan. 12	Piping—Phila., Pa.	Dec. 22
	Adv. Dec. 22.	
Jan. 18	Pier—Puget Sound, Wash.	Dec. 22
Jan. 19	Dredging—Camden, N. J.	Dec. 22
	Adv. Dec. 22.	
Jan. 20	Catamarans—Mobile, Ala.	Dec. 22
	Adv. Dec. 22.	

MISCELLANEOUS

Dec. 23	Oil Tanks and Boilers—New Orleans, La.	Nov. 3
	Adv. Nov. 3 to Dec. 22.	
Dec. 23	Structural Steel, etc.—New York, N. Y.	Dec. 22
Dec. 28	Water Supply System—Metuchen, N. J.	Dec. 8
Dec. 29	Seawall—Portland, Me.	Dec. 15
	Adv. Dec. 8 to 22.	
Dec. 29	Transit Shed, etc.—Tacoma, Wash.	Dec. 15
Dec. 30	Ties—Massachusetts	Dec. 22
	Adv. Dec. 22.	
Dec. 31	Dock—Superior, Wis.	Dec. 22
Jan. 3	Electroliers—Redwood City, Cal.	Dec. 15
Jan. 4	Turbo-Generator — Lincoln, Neb.	Dec. 15
Jan. 4	Railway Material—San Francisco, Cal.	Dec. 15
Jan. 4	Wharf Cranes—Rochester, N. Y.	Dec. 8
	Adv. Dec. 8 to 22.	
Jan. 6	Station Finish — New York, N. Y.	Dec. 22
Jan. 11	Electrical Work—Buffalo, N. Y.	Dec. 22
	Adv. Dec. 22.	
Jan. 11	Refrigeration System—Rochester, N. Y.	Dec. 22
	Adv. Dec. 22.	
Jan. 12	Distribution System—Watertown, S. D.	Dec. 15

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

N. Y., New York—N. J. Hayes, comr. Water Supply, Gas & Electricity, Municipal Bldg., withdrew advertisement for bids to be opened Dec. 9, furnishing, installing and connecting boiler at 98th St. pumping station. Work will be readvertised. Noted Dec. 8.

Va., Richmond—See "Contracts Awarded."

S. C., Walhalla—Voted $90,000 bonds for waterworks. J. Moss, chn. Pub. Wks. Engineer not selected.

Miss., Belzoni — Belzoni D. D. plans pumping plant for reclamation of 4,000 acres. C. E. Miller, Belzoni, engr.

O., Akron—Plans addition to purification plant. $80,000; pumping station and buildings, $70,000; pipe lines, $350,000. G. G. Dixon, 102 East Mill St., engr.

Ind., Hammond—J. Erickson, engr., 30 North LaSalle St., Chicago, soon receives bids 1 story, 50 x 75 ft. boiler house and 1 story, 65 x 95 ft. pumping station, for city. $75,000. Wolf, Sexton, Harper & Trueax, 19 West Madison St., Chicago, archts.

Ill., Des Plaines—Bd. Pub. Wks. making plans 6 in. c.i. mains and 10-12 in. vitr. tile sewers. $27,000. W. H. Allen, 122 South Michigan Ave., Chicago, engr.

Wis., Fall Creek—See "Sewers."

Wis., Stevens Point—Feb. 8 to vote on $65,000 bonds, developing new source water supply, incl. sinking wells, pumping station, piping, etc. W. G. Kirchoffer, Vroman Blk., Madison, engr.

Ia., Cedar Rapids—To vote on $175,000 bonds for reservoir, 266 ft. diam., rein.-con. walls, flat slab roof. Hatton, Holmes & Anthony, 321 Masonic Temple, engrs. Noted Oct. 13.

Ia., Clinton—Clinton Water Co., 5th Ave. and 1st St., plans 1,000,000 gal. reservoir, elevated steel tank, 4 mi. mains, 2 mi. 24 in. pipe, new pumps, also auxiliary pumping station at Lyons, Ind. $100,000. W. L. Meeker, supt.

Ia., Oskaloosa—City has retained Burns & McDonnell, engrs., Interstate Bldg., Kansas City, Mo., to make revised appraisal of Peoples Water Co., and also estimates and plans for new supply of water from Des Moines River, incl. 7 mi. pipe line, filtration, etc. T. H. Carlin, clk.

N. D., Fargo—Making plans mains in Dist. 2. $40,000. B. T. Jacobsen, city engr.

Tex., Paris — Plans waterworks, incl. dam and reservoir on Pine Creek north of here, $1,000,000 bonds sold for project. M. C. Welborn, city engr.

Cal., Oakland—East Bay Water Co., 510 16th St., plans to lay and replace 50 mi. mains, incl. 11,010 ft. 4 in., 112,290 ft. 6 in., and 25,760 ft. 8 in. c.i. pipe, 28,780 ft. 12 in., 24,940 ft. 16 in., 34,180 ft. 20 in., 10,220 ft. 24 in. and 10,460 ft. 36 in. sheet iron pipe. $1,000,000. G. W. Hawley, ch. engr.

BIDS DESIRED

N. Y., Central Islip—Jan. 11, by State Hospital Comn., Albany, artesian well for additional water supply at South Colony Power Plant, Central Islip State Hospital, here. L. F. Pilcher, Albany, state archt.; adv. this issue.

N. Y., Syracuse—Dec. 28, by Bd. Contract & Supply, City Hall, for excavation work in connection with Skaneateles Lake conduit. Former contract rescinded. Noted Dec. 15.

Minn., St. Paul — Dec. 27, by H. W. Austin, city purch. agt., 9,400 ft. galvanized iron pipe and fittings for water dept.

BIDS RECEIVED

O., Cleveland—Opened bids Dec. 9, furnishing 4 water tube boilers from Babcock & Wilcox Co., Guardian Bldg., $91,834, D. Connelly Boiler Co., Ivanhoe Rd., $99,100; stokers, from Ford-Reily Stoker Co., 1836 Euclid Ave., $42,490. Noted Dec. 1.

CONTRACTS AWARDED

Va., Richmond—For steel standpipe incl. foundation, to Pittsburgh-Des Moines Steel Co., Tuttle and South West 10th St., Des Moines, Ia., $12,350; c.i. pipe, to Amer. Cast Iron Pipe Co., 716 Scarritt Bldg., Kansas City, Mo., $2,400. Will take bids about Jan. 10 for filteration plant. Noted Oct. 13.

O., West Park—For 41,000 ft. 6-8 in. c.i. mains to Sewer & Water Impvt. Co., 1350 West 89th St., Cleveland, $67,664. Noted Dec. 15.

Sewers

PROPOSED WORK

S. C., Walhalla—Voted $35,000 bonds for sewerage system. J. Moss, chn. Pub. Wks. Engineer not selected. Noted Sept. 29.

O., Cheviot (Cincinnati P. O.) — J. A. Stewart, engr., 1309 Traction Bldg., Cincinnati, takes bids in spring, sewage disposal plant, for city. $75,000.

Ill., Des Plaines—See "Waterworks."

Ill., Hanover—Making plans 3,300 ft. 12 in., 760 ft. 10 in. and 11,775 ft. 8 in. c.i. pipe, 12 flush manholes, 33 concrete flush tanks, etc., $41,000. J. G. Thorne, 317 Howes Bldg., Clinton, Ia., engr.

Ill., Red Bud — Making plans sewerage system. $50,000. Fuller & Beard, Chemical Bldg., St. Louis, Mo., engrs.

Ill., Streator—Plans sewers. $700,000. Pearse, Greeley & Hansen, 39 West Adams St., Chicago, engrs.

Wis., Berlin—Making plans sanitary and storm sewers, probably require new disposal plant. $25,000. C. G. Walker, City Hall, engr.

Wis., Fall Creek—Making plans sewerage system and waterworks, incl. pump house, 80 ft. tower, 80,000 gal. tank, mains and disposal plant. $50,000. Toltz, King & Day, 1410 Pioneer Bldg., St. Paul, Minn., engrs.

Wis., Fox Lake—Plans new sewerage system. W. F. O'Connell, village clk. Engineer not selected.

Mo., Springfield — Having preliminary surveys made extending mains and laterals in Dist. 40, Sect. 2, 8 in. vitr. pipe. W. C. Culler, city engr.

Tex., Gainesville — City retained Burns & McDonnell engrs., Interstate Bldg., Kansas City, Mo., to prepare plans enlarging and extending sewerage system, incl. modern disposal plant and 10 mi. sewers.

BIDS DESIRED

N. Y., New York—Dec. 28, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., sewer in 26th St. from bulkhead line of East River to Madison Ave. and reconstructing sewer in Madison Ave. from East 25th to East 31st Sts., etc.

N. Y., New York—Dec. 29, by H. H. Curran, pres. Manhattan Boro, sewage treatment plant and pumping station, incl. necessary equipment and machinery in West and Marginal Sts. near intersection with Canal St.

Ind., Indianapolis—Jan. 3 by Bd. Sanitary Comrs., 1 story, 40 x 44 x 64 ft., steel and brick disposal plant. $60,000. C. H. Hurd, 1405 Merchants Bank Bldg., engr.

Mich., Dearborn—Jan. 4, at office F. C. Reamer, village clk., East Side Storm Sewer; C. W. Hubbell, 2348 Penobscot Bldg., Detroit, consult. engr.; adv. this issue.

Ill., Downers Grove—Jan. 7, Bd. Trustees Downers Grove Sanitary Dist., at office E. D. Otto, dist. engr., Downers Grove, disposal plant, connecting and outlet sewers and appurtenances, etc.; adv. this issue. Noted Sept. 1.

BIDS RECEIVED

N. Y., Brooklyn—E. Riegelmann, boro pres., opened bids Dec. 14, repairs to sewer in Foster Ave., from H. E. Fox Constr. Co., 81 East 125th St., New York, $26,898; P. J. Donlon Contg. Co., Snyder Ave. and East 56th St., $29,508; T. J. Hiler, 182 82nd St., $29,577. Noted Dec. 8.

N. Y., New York—H. Bruckner, pres. Bronx Boro, Municipal Bldg., opened bids Dec. 12, sewers in East Tremont Ave., west side between Appleton and Coddington Aves., etc., from J. L. Sigretto & Co., Woodhaven, $46,090; Anita Constr. Co., $50,701; Clemente Contg. Co., 1195 Spofford St., $53,993. Noted Dec. 8.

N. Y., New York—H. H. Curran, pres. Manhattan Boro, Municipal Bldg., opened bids Dec. 12, altering and improving sewer in West 20th St., from J. Burns, 103 East 125th St., $18,355, P. J. Kearns Contg. Co., 2306 Creston Ave., $18,750, T. A. Reilly Co., 48 East 41st St., $21,315; repairing 15 in. vitr. sewer in East 101st St., from J. V. Timoney Co., 220 East 201st St., $2,425, Slatterly Eng. & Constr. Co., 10 East 43rd St., $3,225, P. J. Kearns Contg. Co., 2306 Creston Ave., $3,360. Noted Dec. 8.

CONTRACTS AWARDED

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, storm and saniary sewers, to Tomasetti & Co., 1133 60th St., in Ave. S, 82.87% of engineers estimate ($28 000) in Fenimore St., etc., 88.98% ($3,000); to Murphy Bros., 8856 26th Ave., in 64th St., etc., 71.34% ($2,000). Noted Dec. 8.

N. J., Harrison—Passaic Valley Sewerage Comrs., 128 Market St., Newark, to Harrison & Craig, 31 Clinton St., Newark, southerly portion Sect. 28, Kearny-East Newark - Harrison Branch Intercepting Sewer, here, 3,110 lin.ft. earth excav. and refill in trench for 36 in. concrete sewer, $25.75 per lin.ft., 660 lin.ft. earth excav. and refill in trench for 15 in. vitr. sewer, $8.50, 1,560 cu.yd. concrete masonry, $14.50, etc., total, $129,863. Noted Nov. 17.

Fla., Dunedin—For 11,700 ft. sanitary and storm sewers in Bway., Scotland, Virginia, Douglas, Lowden and Edgewater Sts., to J. G. Yeats, Port Tampa, $26,503. Noted Nov. 24 under Streets and Roads.

O., Akron—Director Pub. Serv. 1,925 ft. 120 in. vitr. brick and 3,000 ft. 6-12 in. tile sewer in Willow Run Contr. 2, to W. Gibbons Constr. Co., Cleveland, $109,423, Noted Dec. 1.

Ill., Mt. Olive—Bd. Local Impvts., sewers, to J. Keeley Co., Cahokia Bldg., East St. Louis, $82,400.

Mo., Joplin—For 3,500 ft. 8 in. tile sewers between Wall and Pearl Sts. from 23rd to 27th Sts. between Virginia and Pennsylvania Aves. from 23rd to 27th Sts., Harlem and Porter Aves. between B and C Sts., between Harlem and Porter Aves. from 19th to 26th Sts., to E. and V. E. Koch, 2304 Pennsylvania Ave., $1.67-$1.72 per lin.ft.

Bridges

PROPOSED WORK

O., Kenmore — Summit Co. (Akron) takes bids in summer 535 ft. concrete highway bridge, here. $250,000. G. F. Pfeiffer, Court House, engr.

Wisconsin—County appropriations for bridge work during 1922, Adams Co. $3,000. J. A. McGregor, Friendship, comr.; Barron Co. $35,890. E. Geason, Barron, comr.; Buffalo Co. $54,182. J. Reinhardt, Nelson, comr.; Clark Co. $16,518. O. Weyhmiller, Neillsville, comr.; Columbia Co. $9,914. J. T. Henton, Portage, comr.; Chippewa Co. $36,383. P. O. Lokrantz, Chippewa Falls. comr.; Dane Co. $50,000. E. J. Smith, Madison, comr.; Douglas Co. $8,065. C. Hanson, Superior, comr.; Eau Claire Co. $12,000. G. Osborne, Eau Claire, comr.; Grant Co. $47,275. H. Mink, Lancaster, comr.; Jefferson Co. $2,498. R. D. Royce, Ft. Atkinson, comr.; Lincoln Co. $57,000. H. H. Kuehling, Merrill, comr.; Marathon Co. $55,624. J. H. Vogt, Wausau, comr.; Pepin Co. $7,000. G. A. Goss, Durand, comr.; Price Co. $5,200. B. M. Griffin, comr.; Richland Co. $29,931. W. V. Robinson, Richland Center, comr.; Pierce Co. $18,400. C. F. Kenall, Ellsworth, comr.; Kewaunee Co. $25,265. M. Shaw, Algoma, comr.; Taylor Co. $20,870. C. Kelnhofer, Medford, comr.; Trempealeau Co. $39,980. E. F. Rotering, Arcadia, comr.; Vernon Co. $65,912. A. Ristow, Viroqua, comr.; Walworth Co. $5,000. H. J. Peter, Elkhorn, comr.; Winnebago Co. $12,404. J. Binning, Oshkosh, comr.; Wood Co. $21,888. E. Morris, Wisconsin Rapids, comr.; Monroe Co. $40,207. C. H. Millard, Sparta, comr.; Sauk Co. $38,041. E. H. Groth, Baraboo, comr.; Waukesha Co. $42,100. C. J. Hahn, Waukesha, comr.; Burnett Co. $21,600. G. E. Miller, Antigo, comr.; Brown Co. $25,000. G. J. Cormier, Green Bay, comr.; Calumet Co. $3,600. W. Hoenig, Chilton, comr.; Waupaca Co. $43,100. J. Huffcut, Waupaca, comr.; Waushara Co. $10,000. F. Grimm, Wautoma, comr.; Sawyer Co. $12,000. E. J. Collett, Hayward, comr.; Ashland Co. $12,057. W. E. Dillon, Highbridge, comr.

Ia., Pocahontas—Comrs. Pocahontas Co. plan 100 ft. steel truss span bridge, 18 ft. roadway, two 5 ft. sidewalks. $25,000. A. L. Thornton, Pocahontas, engr.

Tex., La Grange—Fayette Co. making plans 1,200 ft. bridge on Highway 3B, over Colorado River, here, to have 300 ft. steel center span, 13 70 ft. concrete arch spans. $302,500. A. Schlafli, Schulenburg, co. engr.

Ont., Toronto—Plans bridge over ravine on St. Clair Ave., probably steel, $712,000. R. C. Harris, City Hall, comr. pub. wks.

BIDS RECEIVED

Pa., Phila.—For bridge on 5th St., from Connor & Ley, 3621 North 5th St., $91,300, Jackson & Co., 119 South 4th St., $98,800, Keystone State Constr. Co., 210 South 13th St., $102,000; bridge on 49th St., from T. F. Reilly, 50th St. and City Line Ave., $92,363, O. B. S. Co., 5617 Kingsessing Ave., $98,839; bridge over Phila. & Reading R.R., Poplar St., from C. G. Shaffer Co., 224 North 32nd St., $26,729, F. J. Boas, 201 North Broad St., $32,000, Jackson & Co., 119 South 4th St., $36,450. Noted Nov. 10.

Pa., Phila.—F. H. Caven dir. pub. wks., opened bids Dec. 13, removing old w.i. truss spans and piers, and building new bridge over Schuylkill River, South St., from Dravo Contg. Co., Real Estate Trust Bldg., $644,000; Keystone State Constr. Co. 210 South 13th St., $721,000; Snare Corp., 1524 Chestnut St., $872,000. Noted Nov. 17.

Pa., Phila.—Delaware River Bridge Comn. Widener Bldg., opened bids Dec. 19, bridge over Delaware River between here and Camden, N. J., (1) additional, for excav. and concrete below cutting edge of Pier A, not below el. 85 ft. (500 cu.yd.); (2) additional, for excav. and concrete below cutting edge of Pier B, not below el. 105 ft. (1,100 cu.yd.); etc., from Holbrook, Cabot & Rollins Corp., 52 Vanderbilt Ave., New York, and Keystone State Constr. Co., 210 South 13th St., (1) $13.50, (2) $20, etc., total $1 669,275; Foundation Co., 120 Liberty St., New York, (1) $65, (2) $75, total $1,843,750; Eyre & Johnson, Phila., (1) $48, (2) $68, total $1,943,744. Noted Nov. 17.

North Carolina—State Hy. Comn., Raleigh, rein.-con. bridges and culverts on State Project 980, Macon and Swain Counties, from Southern Dray Co., Ashevile, $28,803, W. T. Moore Concrete Products Co., Andrews, $31,822, H. A. Brown, Asheville, $31,841, State Project 155, Martin and Pitt Counties, from P. R. Ashby, Tucker Bldg., Raleigh, $30,287, J. W. Gregory, Danville, Va., $30,887, J. P. Dicus, Burgaw, $31,716. Noted Nov. 24 under "Streets and Roads."

CONTRACTS AWARDED

North Carolina—State Hy. Comn., Raleigh, rein.-con. bridges and culverts on State Projects 639 and 653, Mecklenburg and Iredell Counties, to Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., $30,325. Noted Nov. 17.

O., Shadesville—Comrs. Franklin Co. (Columbus), 890 ft. steel bridge, 24 ft., to E. M. Scully, 1431 Eastwood Ave., Columbus, $135,000. Above contract does not include approaches, $60,000. Noted Dec. 8.

Railways

PROPOSED WORK

Illinois—W. S. Dickey Clay Mfg. Co., Macomb, making plans narrow gauge railroad, incl. excav., grading, 10,560 ft. rails and ties, etc. $40,000. W. B. Holmes, Macomb, engr.

California — Eng. Dept. of Sugar Pine Lumber Co., 1st Natl. Bank Bldg., San Francisco, preparing plans 55 mi. standard gage railway from Fresno into timber lands. $1,500,000.

Ontario—Grand Trunk Ry., London, having plans prepared improving road and replacing present rails with 100 lb. rails, from Hyde Park to Watford. $200,000. C. Forrester, London, div. engr.

Excavation and Dredging

PROPOSED WORK

Fla., Vero—Indian River Farms D. D. issued $600,000 bonds for new construction and improvement of system. A. W. Young, secy.

Kan., Junction City—Plans open ditch with 4 concrete bridges, 24,400 cu.yd. excav. and 250 cu.yd. rein.-con. $33,000. J. N. Bridgman, Junction City, engr.

Ia., Red Oak—Montgomery Co. making plans 19 mi. open ditch, 1,200,000 cu.yd. excav. $225,000. C. D. Forbeck, Red Oak, engr.

Minn., Bemidji — Beltrami Co. plans Judicial Ditch 45, 12 mi. long, incl. straightening and deepening Rapid River. $83,000. W M. Everts, Bemidji, engr.

CONTRACTS AWARDED

Ill., Carrollton—Comrs. Macoupin Creek D. D., excavating main ditch and laterals, etc., to Armstrong Eng. Co., Taylorville, $233,931. Noted Oct. 27.

S. D., Yankton—Yankton Co. redigging Clay Creek Ditch, 35,000 cu.yd. excav., redigging and enlarging Volin Lateral Ditch 1, 73,000 cu.yd., and extending same, 30,000 cu.yd., to F. A. Blake, Lake Benton, Minn., $0.157 per cu.yd. Noted Nov. 17.

Streets and Roads

PROPOSED WORK

N. J., Bridgeton—Cumberland Co. plans paving ¾ mi. Landis Ave. $40,000. W. M. Sharp, Bridgeton, engr.

N. J., Burlington—Plans to resurface Pearl and Union Sts. $39,000. H. S. Haines, City Hall, engr.

Streets and Roads (Continued)

N. J., Camden—Plans paving various streets and roads. $750,000. J. J. Albertson, City Hall, engr.

N. J., Mt. Holly—Bd. Freeholders Burlington Co. rejected bids opened Dec. 16, paving Beverly Rd. between Burlington City line and Edgewater Park, bituminous concrete dressing. Work will be readvertised. J. Logan, Mt. Holly, engr.

North Carolina—State Hy. Dept., Raleigh, plans grading and hard surfacing, 1.75 mi. road from Grace to New Bridge, State Project 904, Buncombe Co., $52,000; 2.33 mi. Craggy Branch Rd. to Leicester, State Project 903, Buncombe Co., $60,000; 5.35 mi. road from end of Federal Aid Project 63 to Haywood Co. line, State Project 902, Buncombe Co., $25,000. C. M. Upham, state highway engr.

N. C., Grahama—Alamance Co. plans grading and surfacing 5.93 mi. Kimesville Rd. $25,000. W. L. Spoon, Burlington, engr.

Fla., Perry—Voted $75,000 bonds paving 3 mi. streets, brick or asphalt.

O., Akron—Plans paving and laying sidewalks on 1,800 ft. Amelia Ave. and Jane Court, 3,500 lin.ft. curbing, 4,000 sq.ft. sidewalk, 2,000 cu.yd. earth excav., and 4,500 sq.yd. vitr. brick or asphalt on concrete. E. A. Kemmler, 300 Delaware Bldg., engr.

O., Canton—Stark Co. plans improving 67.75 mi. roads in 1922, incl. 12 mi. Canton-Boliver Rd., 4 mi. road from Magnolia to Canton, 5 mi. Richville Rd. from end of present pavement on Navarre Rd. extension through Richville to Massillon-Navarre Rd., 2½ mi. Whipple Rd. from Canton-Massillon Rd. to Fulton Rd., 5½ mi. road from Harrisburg Rd. to Death Curve. Other improvements planned for coming season are 0.8 mi. Minerva Village, 1.59 mi. Canal Fulton to Summit Co., 3.5 mi. Ravenna Louisville, 3.75 mi. Alliance-Minerva, 2 mi. Massillon-Orrville, 1 mi. Pigeon Run Rd., 1.5 mi. Swamp Rd., 1.5 mi. North Canton-Maximo, 1 mi. Aultman-Greentown, 4.5 mi. Uniontown-Hartville, 3 mi. Louisville-Freeburg, 2.25 mi. Paris-Harrisburg, East State St., 0.5 mi. Alliance, Akron St., 2.5 mi. Massillon, gravel. County Engineer preparing plans for most of proposed improvements and will have them ready for bids early in spring. State aid will be available on several jobs.

O., Dayton—A. W. Smith, Vernon Ave., plans to construct streets, sewers, and lay water mains in 70 acre tract. Engineer not selected.

Mich., Detroit—Plans widening and paving 1,000 ft. Madison Ave. from Grand Circus Park, easterly, sheet asphalt on 8 in. concrete. $35,000. C. W. Hubbell, city engr.

Ill., Rockford—Plans paving 40 mi. streets, brick and macadam. $120,000. E. Strand, clk.

Ill., Waukegan—Making plans paving streets, vitr. brick and asphalt on concrete. $76,649. M. J. Douthitt, city engr.

Wisconsin—County appropriations for state aid road construction during 1922, Juneau Co. $23,279. A. V. Robison, New Lisbon, comr.; Kenosha Co. $192,109. J. Herzog, Kenosha, comr.; Kewaunee Co. $61,703. M. Shaw, Algoma, comr.; Lincoln Co. $42,735. H. H. Kuehling, Merrill, comr.; Manitowoc Co. $42,735. J. Connell, Manitowoc, comr.; Marinette Co. $44,534. A. Eklund, Peshtigo, comr.; Marquette Co. $24,352. H. Schmitz, Montello, comr.; Oconto Co. $21,970. E. W. MacAllister, Oconto, comr.; Oneida Co. $10,300. B. L. Horr, Rhinelander, comr.; Pierce Co. $19,068. C. F. Kenall, Ellsworth, comr.; Price Co. $8,694. B. M. Griffin, Phillips, comr.; Richland Co. $21,215. W. V. Robinson, Richland Center, comr.; St. Croix Co. $28,168. J. Caffrey, Hammond, comr.; Shawano Co. $112,118. W. F. Meyer, Shawano, comr.; Trempealeau Co. $45,628. E. F. Rotering, Arcadia, comr.; Vernon Co. $73,948. A. Ristow, Viroqua, comr.; Adams Co. $6,078. J. A. McGregor, Friendship, comr.; Buffalo Co. $58,066. J. Reinhardt, Nelson, comr.; Chippewa Co. $41,889. P. O. Lokrantz, Chippewa Falls, comr.; Clark Co. $28,808. O. Weyhmiller, Neillsville, comr.; Dane Co. $124,828. E. J. Smith, Madison, comr.; Dunn Co. $26,773. F. Stewart, Menomonie, comr.; Eau Claire Co. $57,437. G. Osborne, Eau Claire, comr.; Florence Co. $3,741. O. F. Soderberg, Florence, comr.; Fond du Lac Co. $41,000. G. Treleven, Fond du Lac, comr.; Grant Co. $45,072. H. Mink, Lancaster, comr.; Iron Co. $12,966. W. Weber, Saxon, comr.; Jackson Co. $57,034. W. Tibbitts, Black River Falls, comr.; Ozaukee Co. $117,813, W. J. Ubbink, Port Washingon, comr.; Waushara Co. $11,688. F. Grimm, Wautoma, comr.; Monroe Co. $42,710. C. H. Millard, Sparta, comr.; Sauk Co. $67,279. E. H. Groth, Baraboo, comr.; Waukesha Co. $1,369,561. C. J. Hahn, Waukesha, comr.; Langlade Co. $26,850. C. Olsen, Antigo, comr.; Milwaukee Co. $377,861. W. F. Cavanaugh, Pereles Bldg., Milwaukee, comr.; Calumet Co. $16,686. W. Hoenig, Chilton, comr.; Green Co. $111,443. C. J. Smith, Monroe, comr.; Wood Co. $936,521. E. Morris, Wisconsin Rapids, comr.

Wisconsin—County appropriations for county and state aid road construction during 1922, Jefferson Co. $928,713. R. D. Royce, Ft. Atlinson, comr.; Racine Co. $713,474. W. A. Bechthold, Racine, comr.; Washington Co. $329,344. C. Johnson, West Bend, comr.; Winnebago Co. $202,710. J. Binning, Oshkosh, comr.; Barron Co. $25,246. E. Gleason, Barron, comr.; Bayfield Co., $70,438. J. Friberg, Washburn, comr.; Douglas Co. $368,195. C. Hanson, Superior, comr.; Forest Co. $131,518. F. J. Rogers, Crandon, comr.; Green Lake Co. $282,940. D. C. Williams, Green Lake, comr.

Wisconsin—County appropriations for road construction during 1922, Pepin Co. $10,969. G. A. Goss, Durand, comr.; Polk Co. $21,255. C. W. Nystrom, Balsam Lake, comr.; Ashland Co. $12,743. W. E. Dillon, Highbridge, comr.; Columbia Co. $77,320. J. T. Henton, Portage, comr.; Forest Co. $140,000. F. J. Rogers, Crandon, comr.; Brown Co. $43,000. G. J. Cormier, Green Bay, comr.

Wis., Green Bay—Making plans paving, curbing and guttering 1.1 mi. Elmore, Cass and Oakland Sts., 30 ft. 1 course rein.-con. $30,000. A. E. Kringel, City Hall, engr.

Wis., Kenosha—Kenosha Co. plans paving 6 mi. Geneva Rd., 5½ mi. road from bridge in town of Wheatland near New Munster and 2 mi. State Trunk Highway 57, Somers, all 18 ft., concrete. C. R. Weymouth, 444 Milwaukee St., Milwaukee, div. engr.

Wis., Port Washington—Ozaukee Co. plans paving 8 mi. Lake Shore Rd., State Trunk Highway 17, from here south and from Mequon north, 18 ft., concrete. C. R. Weymouth, 444 Milwaukee St., Milwaukee, div. engr. Wisconsin Hy. Comn.

Wis., Watertown—City and Jefferson Co. (Jefferson), takes bids in spring paving 1 mi. Nashotah St. (continuation of Highway 26), 18 ft. $30,000. A. Kraeft, City Hall, engr.

Tex., Brenham—Soon takes bids paving 26,960 sq.yd. Main, Alamo, Quitman, Market, St. Charles and Baylor Sts., vitr. brick, vibrolithic, uvalde rock asphalt, bitulithic or concrete, 3,500 lin.ft. curbing and guttering, 7,300 cu.yd. earth excav. $50,000. G. A. Bracker, Brenham, consult. engr.

Tex., Greenville—Hunt Co. making plans surfacing 12.15 mi. Highway 42, from Raines Co. Line northwest, 16 ft., 25,016 cu.yd. crushed stone base, 5,003 cu.yd. crushed stone cover material, 72,963 gal. bituminous material. $176,494. A. D. Duck, co. engr.

Tex., Mason—Mason Co. making plans grading and surfacing 14.2 mi. State Highway 9, from here to McCulloch Co. Line, gravel and rock, 16 ft., 182 cu.yd. concrete, 2,101 cu.yd. loose and 2,165 cu.yd. solid rock excav., 403.46 cu.yd. concrete pavement, and 21,550 lb. reinforcing. $63,550. B. M. Haberer, Brenham, co. engr.

Tex., Pittsburg—Camp Co. making plans grading, gravel surfacing and bridging 17 mi. State Highway 1A from Wood Co. line to Titus Co. line, 16 ft. $302,507. C. C. Chappell, co. engr.

Tex., Pittsburg—Camp Co. making plans grading, gravel surfacing and building structures on 11 mi. State Highway 11, Upshur Co. to Titus Co. line, 16 ft., 3,330 cu.yd. concrete, 25,542 cu.yd. gravel, 150,000 lb. reinforcing. $128,432. C. C. Chappell, co. engr.

Tex., Rock Springs—Edwards Co. making plans grading 8 mi. rock surfacing 2 mi., constructing bridges and culverts on State Highway 4, Rock Springs towards Barksdale, 16 ft., 3,756 cu.yd. borrow, 220 cu.yd. concrete, 17,420 cu.yd. earth, 12,744.5 cu.yd. solid rock and 465.2 cu.yd. loose rock excav., and 3,409 cu.yd. rock surfacing. $74,000. W. E. Simpson Co., 414 Natl. Bank of Commerce Bldg., San Antonio, engrs.

Tex., San Angelo—Voted $150,000 bonds paving main streets. L. H. Laging, city engr.

Tex., Sherman—Grayson Co. making plans grading, surfacing and building structures on 5.54 mi. State Highway 5 and 6, 16 ft. $51,000. J. C. Field Denison, co. engr.

Tex., Wichita Falls—Wichita Co. making plans concrete paving 8.16 mi. State Highway 2, Wichita Falls to Red River, 85,876 sq.yd. concrete, 39,438 cu.yd. overhaul, etc. $338,289. J. M. Isbell, co. engr.

Col., Denver—Plans paving 12 blocks Alley Paving Dist. 68, $30,850, 12 blocks Alley Paving Dist. 67, $20,621, both 16-20 ft., concrete. J. B. Hunter, City Hall, engr.

Wash., Chehalis—Soon takes bids replacing present Warrenite pavement with concrete on 5,000 ft. Market St. from Main to Blevent Sts., 20 and 30 ft. $63,000. B. Bantz, Chehalis, engr.

Cal., Richmond—Having plans prepared asphaltic concrete surfacing and constructing cement sidewalks on Ohio St. from 37th to 41st Sts.; 37th St. from Macdonald to Wall Sts., and 39th St. from 41st to Waller Sts., 18 ft. H. D. Chapman, city engr.

Cal., San Luis Obispo—Supervs. San Luis Obispo Co. will probably take bids in January, grading and paving Ontario House-Aliva Rd., 9,379 cu.yd. excav., 13,986 lin.ft. shaping and rolling, 3,245 cu.yd. concrete paving. W. Burch, Lowe Bldg., engr.

Ont., London—City and Middlesex Co. having plans prepared and probably take bids in March, 4 mi. Pipe Line Rd. $50,000. H. A. Brazier, city engr. C. Talbot, County Bldg., engr.

BIDS DESIRED

N. Y., New York—Dec. 29, by H. H. Curran, pres. Manhattan Boro, Municipal Bldg., curbing and flagging New Ave. adjoining Highbridge Park (Laurel Hill Terrace), 181st to 184th Sts.

W. Va., Lewisburg—Jan. 3, by Greenbrier Co., grading and paving 5 mi. Blue Sulphur Turnpike from Alderson toward Blue Sulphur Springs. J. W. Rader, co. engr.; adv. this issue.

N. C., Halifax—Dec. 31, by Highway Comn. Halifax Co., at office C. F. Gore, supt. highway, Weldon, grading and surfacing 7 mi. roads from Tillery to Crowells Cross Rds., from Tillery to Halifax Rds., and from Tillery to New Tillery, 21,000 cu.yd. excav., 6,000 cu.yd. sand-clay surfacing, 8,500 cu.yd. gravel surfacing, 10 acres clearing, etc. Noted Oct. 27 under Weldon.

Fla., Jacksonville—Jan. 3, by F. Brown, clk. Duval Co., paving and curbing 2 mi. Edgewood Ave., 10,320 lin.ft. 3 x 10 in. cypress curbing, 16,880 sq.yd. bituminous macadam and 2,110 ton limestone rock base. $50,000.

Fla., Lake Wales—Jan. 31, 175,000 sq.yd. pavement. J. W. Turner, Lakeland, engr.; adv. this issue. Noted Dec. 15.

Fla., Palatka—Jan. 10, by C. Burt, city clk., paving 2 mi. various streets, 13,000 sq.yd. vitr. brick and 20,000 lin.ft. concrete curbing. $45,000. J. H. Randolph, Palatka, engr.

Ala., Athens—Dec. 30, at office S. A. Davis, cty clk., paving, curbing and guttering various streets; adv. this issue.

Miss., Laurel—Dec. 30, by Mayor and Bd. Comrs., at office of G. L. Lightsey, city clk., 24,392 sq.yd. brick pavement on concrete, etc.; adv. this issue.

O., Akron—Jan. 3, by Director Pub. Serv. paving 1,000 ft. North Howard St., 1,400 lin.ft. curbing, 9,000 sq.ft. sidewalk, 4,500 cu.yd. earth excav. and 4,500 sq.yd. vitr. brick or asphalt on concrete. E. A. Kemmler, Delaware Bldg., engr.

Ind., Petersburg—Jan. 2, by Comrs. Pike Co., at auditors office Wilson Bldg., Main St., paving, gravel and stone surfacing 2 mi. 5,022 ft. Rd. 1, and 2 mi. 3,506 ft. Rd. 2 of Unit Rd. 3, Lockhart Twp.; 2 mi. Unit Rd. 18, Jefferson and Patoka Twps.; 3 mi. Unit Rd. 2, highway between Logan and Madison Twps.; 1 mi. 3,893 ft. road 6 of William J. Abbott et al system, Jefferson Twp.; road from Sta. 0 to Sta. 118 plus 19, and from Sta. 276 to Sta. 489 plus 31, Unit Rd. 1, Jefferson, Marion and Lockhart Twps.; 5 2/8 mi. highway Monroe Twp.; 3 mi. 1,015 ft. highway Logan Twp. W. F. Risley, aud.

Kan., Wichita—Dec. 27, by Sedgwick Co., grading and surfacing 2⅜ mi. Douglas Ave. and Kellogg St., 18 ft., sand and gravel. $26,000. M. Roseberry, co. engr.

Cal., San Luis Obispo—Jan. 3, by Bd. Supervs. San Luis Obispo Co., grading, curbing and guttering portions 3rd, 4th, 5th, 6th, 7th, Market, Morro, Main and C Sts., Rd. Dist. 3, 367,018 sq.ft. disintegrated rock base, 14,648 lin.ft. concrete curb, 25,670 sq.ft. concrete gutter, 432,445 sq.ft. grading. $35,000. W. Burch, Lowe Bldg., engr.

Streets and Roads (Continued)

BIDS RECEIVED

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Dec. 14, paving (1) Bay 28th St., (2) Clara St., (3) Dumont Ave., (4) East 7th St., (5) Lott Ave., (6) Newport St., (7) Rugby Rd., (8) Van Sinderin Ave., (9) West 28th St., (10) 20th Ave., (11) 21st Ave., (12) 48th St., (13) 58th St., (14) 67th St. from 3rd to 4th Aves., (15) 67th St. from Ft. Hamilton Prkway to 10th Ave., (16) 75th St., (17) 77th St., (18) 78th St., (19) 90th St., repaving, (20) Ridge Blvd., grading sidewalk space, curbing and flagging (21) Division Pl., grading, curbing and laying sidewalks, (22) Van Sinderen Ave., (23) 20th Ave., (24) 21st Ave., grading, curbing, laying and relaying sidewalks, (25) 20th Ave., from Borough Asphalt Co., 1301 Metropolitan Ave., (1) $4,522, (2) $7,194, (3) $2,077, (4) $7,635, (5) $2,586, (6) $4,698, (7) $1,452, (8) $5,639, (9) $7,592, (10) $7,060, (11) $6,323, (12) $7,066, (13) $6,055, (14) $6,159, (15) $3,769, (16) $11,519, (17) $6,223, (18) $6,769, (19) $6,344, (20) $26,396, Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., (1) $4,962, (10) $7,816, (11) $7,090, (12) $8,183, (13) $6,781, (14) $6,878, (15) $4,203, (16) $12,842, (17) $6,952, (18) $7,376, (19) $7,136, (20) $28,970. Cranford Co., 152 9th St., (1) $5,270, (2) $9,591, (3) $2,423, (4) $9,102, (5) $3,063, (6) $5,496, (7) $1,661, (8) $6,557, (9) $7,954, (10) $8,391, (11) $7,512, (12) $8,691, (13) $7,214, (14) $7,336, (15) $4,459, (16) $13,675, (17) $7,405, (18) $7,871, (19) $7,550, (20) $31,188. Uvalde Asphalt Paving Co., 1 Bway., New York, (2) $9,321, (9) $8,595. Cleveland Trinidad Paving Co., Flushing, (3) $2,519, (4) $9,319, (5) $2,797, (6) $5,464, (7) $1,962, (8) $6,510. T. B. Scott, (21) $1,216. C. Gallagher, 745 Dean St., (21) $1,422, (22) $3,079, (23) $3,501, (25) $3,254. A. E. Castle, 3313 Tilden Ave., (21) $1,518, (23) $3,486, (25) $2,876. Grimm Constr. Co., 170 McKinley St., (22) $2,347. T. Bernhart, (22) $3,347. L. Mangieri, 190 31st St., (23) $3,635, (25) $3,094. F. Persicano, 350 Fulton St., (24) $5,023. Castle Bros., Inc., Johnson Pl., (24) $5,239. B. Turecamo Contg. Co., 8706 Bay 12th St., (24) $5,401. Noted Dec. 8.

North Carolina—State Hy. Comn., Raleigh, improving (1) 7.04 mi. State Project 856, Mitchell Co., (a) clearing and paving, penetration macadam, (b) rein.-con. bridges and culverts, (2) 5.01 mi. State Project 920, Clay Co., (a) grading and gravel surfacing, (b) rein.-con. bridges and culverts, (3) 5.2 mi. State Project 833, Henderson Co., (a) grading and concrete or asphaltic paving, (b) rein.-con. bridges and culverts, (4) 9.87 mi. State Project 113, Chowan Co., (a) clearing and grading, (b) rein.-con. bridges and culverts, (5) 10.4 mi. State Project 114, Chowan Co., (a) clearing and grading, (b) rein.-con. bridges and culverts, (6) 1.9 mi. State Project 823, Cleveland Co., (a) grading and paving, concrete or some asphaltic material, (b) rein.-con. bridges and culverts; grading and paving, concrete or some asphaltic type, (7) 7.63 mi. State Project 291, Old Federal Aid Project 127, Wilson Co., (8) 4.51 mi. State Project 695, Union Co., (9) clearing, grading and topsoiling, 19.3 mi. State Project 155, Martin and Pitt Counties, (10) grading, topsoiling and concrete or asphaltic paving 5.97 mi. State Project 782, Wilkes Co., (11) clearing, grading and paving, waterbound macadam, 17.84 mi. State Project 980, Macon and Swain Counties, (12) grading, concrete or asphaltic paving and rein.-con. bridges and culverts, 5.24 mi. State Project 811, Burke Co., from Porter & Boyd, Realty Bldg., Charlotte, (1a) $198,602, (3a) $38,054, (4a) $16,902, (10) $110,350, (12) $186,000; J. L. Chandler & Co., Virgilina, Va., (1a) $222,091, (1b) $18,146; Barber-Fortin Co., Warren, O., (1a) $228,714, (1b) $23,530, (7) $198,883, (8) $113,417, (12) $179,091; Burgess & Alkison, Scottsville, Va., (1b) $24,550; E. A. Wilson & Co., Knoxville, Tenn., (2a) $30,057, (2b) $16,898, (11) $284,070; L. J. Smith Constr. Co., Charlotte, (2b) $15,325; Austin & Ritchie, Richfield, (2a) $31,362; W. T. Moore Concrete Products Co., Andrews, (2b) $16,049; O. A. Mann, La Grange, Ga., (2a) $32,779, (3b) $8,905; S. L. Davis Constr. Co., Greensboro, (3a) $26,312, (11) $293,131; Asheville Constr. Co., Asheville, (3b) $8,603; F. Ray, Newport, Tenn., (3a) $29,927; R. C. Stevens, Asheville, (3b) $8,622; N. L. Teer, Durham, (4a) $13,645, (5a) $17,435, (9) $68,773; P. R. Ashby, Tucker Bldg., Raleigh, (4b) $23,409, (5b) $25,209, (7) $184,994; Battershill & Goode, Virgilina, Va., (4a) $14,293, (5a) $15,767; F. L. Grant, Clarksburg, (4b) $24,232, (5b) $26,395; Porter & Peck, Greenville, (4b) $24,910; Chandler & Ragland, Virgilina, Va., (5a) $19,316, (5b) $25,200; Southern Paving & Constr. Co., Vol. Life Bldg., Chattanooga, Tenn., (6a) $54,814; Z. B. Weathers & Sons, Shelby, (6b) $19,035; Booz, Loyd & Co., Rome, Ga., (6a) $56,469; Bolton Constr. Co., Marion, (6b) $20,539; Asheville Paving Co., Asheville, (6a) $56,780; Austin Bros. Bridge Co., Hurt Bldg., Atlanta, Ga., (6b) $20,621; R. G. Lassiter, Citizens Bank Bldg., Raleigh, (7) $192,297; Redmon Constr. Co., Monroe, (8) $112,605; Union Paving Co., 30th and Locust Sts., Phila., (8) $115,144; J. P. Dicus, Burgaw, (9) $57,270; J. W. Gregory, Danville, Va., (9) $63,623; J. F. Mulligan Constr. Co., North Wilkesboro, (10) $119,707; Oliver & Costello Bros., Knoxville, Tenn., (11) $313,843; Southern Dray Co. Asheville, (12) $171,200 Noted Nov 24.

Wisconsin—Wisconsin Hy. Comn., Madison, Peshtigo-Marinette Rd., Federal Aid Project 259, Marinette Co., (a) 47,192 sq. yd. concrete surfacing, (b) 15,350 bbl. cement, from W. E. Ule, Stevens Point, (a) $1.42, (b) $2.50, etc., total $108,088; Brogan, Burns & Schaefer, Green Bay, (a) $1.29, (b) $3, etc., total $109,714; Jorgenson Constr Co., Denmark, (a) $1.54, (b) $2.54, etc., total $113,585.

Tex., Cuero—De Witt Co. opened bids Dec. 12, grading and gravel surfacing 10.31 mi. State Highway 39, Federal Aid Project 114, 34,824 cu.yd. borrow, 37,752 cu.yd. earth and 1,400 cu.yd. loose rock excav., 1,021.4 cu.yd. concrete, 113,536 lb. reinforcing, 23,718 cu.yd. gravel surfacing to be furnished by county, from Stahl, McElroy & Tom, Gonzales, $63,676; W. T. Hutto & Sons, Gonzales, $64,139; Miller Constr. Co., Port Lavaca, $69,825. Noted Dec 8.

CONTRACTS AWARDED

N. Y., Brooklyn—E. Riegelmann, boro. pres., Boro. Hall, repaving Nevins St., etc., to Leonard Paving Co., 233 Bway., New York, $7,949; Ridge Blvd., etc., to Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $31,346; Tillary St., etc., to R. J. Donovan, 618 Union St., $11,420. Noted Dec. 8.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., Municipal Bldg., repaving 52nd St., etc., to J. E. Gaffney, 438 East 91st St., $5,255; 76th St., etc., to Asphalt Constr. Co., 2197 Madison Ave., $32,098; curbing, recurbing, flagging, reflagging and paving Fairview Ave., etc., to P. J. Kearns Contg. Co., 2306 Creston Ave., $25,758; grading, curbing and flagging West 187th St., to M. Del Balso, 660 East 221st St., $67,988. Noted Dec. 1.

N. Y., New York—H. H. Curran, pres. Manhattan Boro., Municipal Bldg., widening and repaving 60th St. and repaving 69th St., etc., to Interboro Asphalt Co., 2306 Creston Ave., $12,702 and $11,814 respectively; repaving East 61st, East 52nd and East 76th Sts., to J. E. Gaffney, 438 East 91st St., $10,384, $23,450 and $6,091 respectively; Bleeker St., etc., to Brusstar Constr. Co., Inc., Harlem River and 150th St., $3,603. Noted Dec. 15.

N. J., Morristown—Morris Co. grading road from Long Valley to Washington Twp., 25,861 cu.yd. excav., etc., to Gray Constr. Co., Franklin St., $33,585.

West Virginia — State Rd. Comn., Charleston, to Keeley Constr. Co., Clarksburg, grading 5 mi. Morgantown-Pt. Marion Rd., Monongalia Co., 27,800 lin.ft. clearing, 55,000 cu.yd. excav., etc., $48,999, grading and paving 2 mi. Ripley-Fairplain Rd., Jackson Co., 10,450 lin.ft. clearing, 13,230 cu.yd. excav., 3,723 cu.yd. plain concrete pavement, etc., $62,517, 4.5 mi. Huntington-Hodges Rd., Cabell and Wayne Counties, 9,400 lin.ft. clearing, 23,300 cu.yd. excav., 8,550 cu.yd. one course plain concrete pavement, etc., $129,852; to L. J. Chandler, Virgilina, Va., grading 4 mi. Huntersville-Knapps Creek Rd., Pocahontas Co., 43,200 cu.yd. excav., etc.; $36,713, 4.6 mi. Dawdy Mountain Rd., Boone Co., 102,200 cu.yd. excav., 1,150 cu.yd. dry excav., etc. $71,034; to J. Carola, Ronceverte, grading 3 mi. road from end Project 77 to Clintonville Rd., Greenbrier Co., 22,200 cu.yd. excav., 140 cu.yd. dry excav., etc., $21,260; to Stringer & Springer, Moundsville, grading and paving 2 mi. Moundsville-Taylors Ridge Rd., Marshall Co., 10,350 lin.ft. clearing, 15,776 cu.yd. excav., 18,400 sq.yd. waterbound macadam, etc., $42,001; to Souder Constr. Co., Woolworth Bldg., Lancaster, Pa., grading and paving 3.3 mi. road from Hancock, Md., to Berkeley Springs Rd., Morgan Co., 17,600 lin.ft. clearing, 15,000 cu.yd. excav., 4,550 cu.yd. one course concrete pavement, etc., $86,279; to M. N. Schilsely, Johnstown, Pa., grading 4.4 mi. road from Pendleton Co. to Panay Rd., Grant Co., 23,300 lin.ft. clearing, 42,000 cu.yd. excav., etc., $41,220; Cavin & Powers, Charleston, grading 3 mi. Grantsville-Arnoldsburg Rd., Calhoun Co., 15,800 lin.ft. clearing, 26,900 cu.yd. excav., etc., $43,826. Noted Nov. 24.

North Carolina—State Hy. Comn., Raleigh, grading and topeka paving on 5 in. concrete, 10.59 mi. State Project 639, Iredell Co., to R. M. Hudson Co., Salisbury, $332,534, 8.84 mi. State Project 653, Mecklenburg Co., and 10.85 mi. State Project 622, Catawba Co., to Union Paving Co., 30th and Locusts Sts., Phila., $269,941 and $322,110 respectively; grading and concrete paving 1.57 mi. State Project 655, Mecklenburg Co., to Speed-Parker Co., Norton Bldg., Louisville, Ky., $50,954, rein.-con. culverts on above to Luten Bridge Co., 405 East 4th Ave., Knoxville, Tenn., $6,950; clearing and grading 9.87 mi. State Project 456, Orange Co., to Crawford & Crawford, Mebane, $17,743, rein.-con. bridges and culverts on above to N. L. Teer, Durham, $16,610; grading, rein.-con. culverts and paving, 6 in. concrete, 8.5 mi. State Project 632, Gaston Co., to Davis-Wilcox Constr. Co., Spencerville, O., $265,335. Noted Dec. 8.

N. C., Marion—McDowell Co., clearing, grading, etc., 7½ mi. road between Stone Mountain Church and Henderson Co. line, to Michaux Constr. Co., Albemarle, $44,878.

Fla., Dunedin—Grading, paving, curbing and guttering 1½ mi. Bway., Scotland, Virginia, Douglas, Lowden and Edgewater Sts., 20,500 sq.yd. asphalt block and 19,500 lin.ft. concrete curb and gutter, to J. G. Yeats, Port Tampa, $68,000. Noted Nov. 24.

Alabama—State Hy. Dept., Montgomery, grading, bridging and surfacing, local chert, 17,758 mi. road between Ft. Payne and Collinsville, De Kalb Co., to J. P. Dicus, Burgaw, N. C., 68,356 cu.yd common excav., $0.26 per cu.yd., 17,834 cu.yd. solid rock excav., $0.80, 45,168 cu.yd. chert, 1 mi. haul, $0.63, 98,604 cu.yd. chert, ½ mi. additional haul, $0.175, 182,913 lb. reinforcing, $0.06, etc., total $159,326. Noted Dec. 8.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, concrete paving 3.89 mi. Route 5, Sect. 6, DuPage Co., to C. C. Stewart & Co., Chicago, $82,760; 5.83 mi. Route 18, Sect. 9, DuPage Co., to A. Ward & Sons, Oak Glen, $124,360; 6.45 mi. Route 18, Sect. 10, DuPage Co., to Cook County Contg. Co., 115 South Dearborn St., Chicago, $134,951. Noted Aug. 18 and Sept. 22.

Ill., Chicago—Bd. Local Impvts., paving 62nd, 61st, Parkside, Major, Massaoit, Menard, Mansfield, Mayfield and Mason Sts., to J. A. McGarry & Co., 189 West Madison St., $233,000.

Ill., East Moline—Paving various streets, monolithic concrete, asphalt or vitr. brick, to V. McLain Constr. Co., 922½ 15th Ave., $107,000. Noted Nov. 3.

Ia., Forest City—Winnebago Co., grading and gravel surfacing Sects. A and B, Primary Rd. Project 120, east and west through Thompson, 21,716 cu.yd. excav. and 22,255 cu.yd. gravel, to W. Dutton, Boone, 19,404 cu.yd. excav. at $0.32 and 2,312 cu.yd. at $0.35 per cu.yd.; L. H. Marvill, Des Moines, 9,202 cu.yd. gravel, 1 mi. haul, $0.387 per cu.yd., 57,720 units, ½ mi. haul, $0.104, 17,160 cu.yd. 1 mi. haul, $0.38, 84,240 units ½ mi. haul, $0.10. Noted Dec. 1.

Minnesota—State Hy. Com., St. Paul, paving 23 mi. State Project 27-21, between Morrison Co. Line and Sherburne Co. Line, Benton Co., 241,000 sq. yd. concrete, to McCree, Moos & Co., 711 Merchants Natl. Bank Bldg., St. Paul, $544,811. Noted Nov. 24.

Missouri—State Hy. Dept. at div. office Bloomfield, 8.976 mi. road from Poplar Bluff to Cairo, Federal Aid Project 179, Stoddard Co., to N. Davis, Sikeston, $59,811. Noted Nov. 17.

Missouri—State Hy. Dept., at div. office Clayton, 7.0625 mi. Le May Ferry Rd., Federal Aid Project 80, St. Louis Co., 45,820 cu.yd. earth and 970 cu.yd. rock excav., 77,664 sq.yd. 1 course concrete pavement and 537.3 cu.yd. concrete masonry, etc., to Unit Constr. Co., Title Guaranty Bldg., St. Louis, $243,981; 6.07 mi. Gravois Rd., Federal Aid Project 78, St. Louis Co., 31,737 cu.yd. earth excav., 71,025 sq.yd. 1 course concrete pavement, 191.6 cu.yd. concrete masonry, etc., to Whitlow Constr. Co., Charles City, Ia., $199,002.

Tex., Rock Springs—Edwards Co. grading 4 mi. Highway 4, 27 acres clearing, 8,981 cu.yd. roadway and 6,944 cu.yd. solid rock excav., 118.5 cu.yd. concrete dips, 120 cu.yd. concrete, 4,618 lb. reinforcing, to Tibbetts Constr. Co., Box 179, Mineral Wells, $28,916.

Streets and Roads (Continued)

Cal., Calexico—Grading and constructing cement curbs, sidewalks and crosswalks, to L. S. Atkinson, Chapman Bldg., Los Angeles, $269,496. Noted Nov. 24.

Cal., Fresno—Improving portions of Echo, Elizabeth and Dudley Sts., to Federal Constr. Co., Call Building, San Francisco, 166,418 sq.ft. grading, 142,822 sq.ft. 1½ in. Warrenite surface on 3½ in. asphaltic concrete, 5,230 sq.ft. concrete gutter, 15,230 ft. concrete curb, 15,967 sq.ft. cement sidewalks, etc., $53,862; M St. between Kern and San Diego Sts., to Thompson Bros., 1514 H St., 193,118 sq.ft. grading, 180,555 sq.ft. 1½ in. Warrenite surface on 5 in. concrete, 12,060 sq.ft. concrete gutter, 6,647 lin.ft. concrete curb, etc., $70,144; San Joan St. between Bway. and M St., to California Road and Street Impvt. Co., Bank of Italy Bldg., 68,521 sq.ft. grading, 63,244 sq.ft. 1½ in. Warrenite surface on 3½ in. asphaltic concrete, 5,075 sq.ft. concrete gutter and 2,598 lin.ft. concrete curb, $20,135; University and Moroa Aves. and Van Ness Blvd., to California Road and Street Impvt. Co., Bank of Italy Bldg., 105,468 sq.ft. grading, 81,499 sq.ft. 1½ in. Warrenite on 3½ in. asphaltic concrete, 3,921 sq.ft. concrete gutter, 3,878 ft. concrete curb, 6,652 ft. cement sidewalks, etc., $31,936.

Cal., Los Angeles—Paving with 6 in. concrete, curbing, guttering and sewers in Eaglerock Ave., to Fairchild-Gilmore-Wilton Co., Pacific Electric Bldg., $40,410. Noted Dec. 15.

Cal., Santa Barbara—Paving Haley, Cota, Soledad and Casitas Sts., 1½ in. asphaltic concrete on 5 in. concrete, to Hunter & Richardson, 525 Haley St., $55,136.

Cal., Santa Barbara—Santa Barbara Co., paving 29 mi. Surf-Lompoc Highway, asphaltic concrete, to Fairchild-Gilmore & Wilton Co., Pacific Electric Bldg., Los Angeles, $497,989. Noted Nov. 24.

Industrial Works

PROPOSED WORK

Mass., Boston—Blodgett, Ordway & Webber, 100 Kingston St., havng plans prepared by Blackall, Clapp & Whittemore, archts., 20 Beacon St., 5 story warehouse, brick, concrete foundation, Harrison Ave. $225,000.

Mass., Cambridge—C. B. Moller, Inc., Main St., having plans prepared by H. W. Morton, archt., 308 Boylston St., Boston, 5 story, 50 x 180 ft. warehouse, rein.-con., Main St. $200,000.

Mass., Lawrence—Lawrence Drug Co., Inc., 79 Common St., having plans prepared by Ashton-Huntress & Alter, archts., Essex St., 3 story, 50 x 100 ft. warehouse, Water St. $90,000.

Conn., Bridgeport—Union Specialty Co., 138 Hurd Ave., having plans prepared 2 story, 50 x 125 ft., brick factory, Hurd Ave. $50,000. Private plans.

N. Y., New York—New York Edison Co., 30 East 15th St., having plans prepared by W. Whitehill, archt. and engr., 12 Elm St., 1 story, 50 x 100 ft., brick and concrete sub-station, plain foundation, Park Ave. and 168th St. $150,000.

N. Y., Utica—A. Scala & Son, 710 Bleeker St. plan packing house. $100,000-$150,000. Architect not selected.

Pa., Bellefonte—Hecla Park Assn. plans electric light plant and power house. $50,000. W. C. Rowe, Allegheny St., mgr.

Pa., Harrisburg—Central Publishing House, 329 Market St., plans 3 story, 50 x 100 ft. brick, 13th and Walnut Sts. $150,000.

Pa., Johnstown—Wharton Motors Co. plans 3 story, concrete and steel factory, $100,000. W. H. Lamborne, mgr. Architect not selected.

La., Bogalusa—Bogalusa Paper Co., subsidiary of Great Southern Lumber Co., Whitney Bldg., New Orleans, plans concrete, brick and steel addition to plant. $1,000,000. W. H. Sullivan, genl. mgr.

La., New Orleans—H. K. Johnson, Hibernia Bank Bldg., plans electric lighting and power plant.

O., Cincinnati—J. Steinkamp & Bro., archts., Mercantile Library Bldg., open bids end of December, 2-story, 158 x 228 ft., limestone and brick garage, Gilbert Ave. and Linton St., for Mason-Towle Co., Gilbert Ave. $125,000.

O., Cleveland—J. N. Galvin, Society for Savings Bldg., having plans prepared 1 story, 50 x 100 ft., brick and steel garage, plain foundation, 6711 Detroit Ave. $40,000. Private plans.

O., Minerva—Lewis Electric Mfg. Co. having plans prepared by Watson Eng. Co., archts., 3614 Prospect Ave., Cleveland, 2 story, 60 x 100 ft., brick, steel and concrete factory plain foundation. $75,000.

Ind., Bloomington—W. C. Hottle, R. C. Wiles and K. C. May having plans prepared by J. E. Kopf & Wolling, archts., 402 Ind. Pythian Bldg., Indianapolis, 2 story, 87 x 130 ft., brick, rein.-con. and steel garage and sales building. North College Ave. $150,000.

Ind., Elkhart—Amer. Coating Mills plan 5 story, 97 x 125 ft., rein.-con. and brick warehouse. $250,000. Private plans.

Ind., Evansville—Evansville Sash & Door Co. plans 3-story, 250 x 350 ft., brick warehouse, Wabash Ave. $175,000.

Ind., Franklin—D. M. Hoagland & Co., Scottsburg, plans 3-story, 130 x 134 ft., brick factory, here. $75,000. L. Griffin, Franklin, archt.

Ind., Ft. Wayne—Pennsylvania Lines, west of Pittsburgh, Pennsylvania Sta., Pittsburgh, plans 2-story, 82 x 180 ft., brick and steel machine and boiler shops, here. $400,000. R. Trimble, Pennsylvania Sta., Pittsburgh, engr.

Ind., Indianapolis—Wayne Oil & Tank Co., 58 West New York Ave., plans brick addition to factory. $150,000. Private plans.

Ind., Jonesboro—Indiana Rubber Co. plans 3-story, 60 x 125 ft. brick factory. $50,000. Private plans.

Ind., Mishawaka—Grange Elevator Co., plans 1 story, 90 x 125 ft. brick warehouse. $150,000. Private plans.

Mich., Benton Harbor—Pearse, Greeley & Hansen, engrs., 39 West Adams St., Chicago, soon take bids, filtration plant for city. $200,000.

Ill., Chicago—H. J. Schlacks, archt., 721 North Michigan Ave., preparing plans 7 story, 65 x 170 ft. furniture factory, rein.-con., brick and steel, at 1340 South Michigan Ave., for P. J. Krez, c/o architect, $250,000.

Ill., Rockford—Allen Ice Cream Co., 327 South Winnebago St., having plans prepared by Peterson & Johnson, archts., 406 Swedish Amer. Bank Bldg., 5th Ave. and 7th St., 2 story, garage and warehouse, brick, tile, steel and rein.-con. $46,000.

Ill., Rockford—G. C. Brown and W. C. Gridley, 1826 Hoffman Blvd., having plans prepared by C. E. Wolfley, archt., 610 Stewart Bldg., 60 x 145 ft. garage, 35 x 60 ft. repair shop and 20 x 30 ft. boiler house, rein.-con., brick and stone, Auburn Ave. $75,000.

Ill, Rockford—Hess & Hopkins Leather Co., c/o F. L. Morgan, secy., having plans prepared 1 story, 60 x 115 ft. tannery, brick and steel. $40,000. Private plans.

Ill., Rockford—Nelson Knitting Co., 660 South Wyman St., plans 3-story, rein.-con. factory, Kent St., near Church St. $75,000. A. G. Kuhl, secy. Architect not selected.

Wis., Appleton—Appleton Coated Paper Co., Rankin St., having plans prepared by H. Wildhagen, archt., College Ave., 3 story, 46 x 80 ft. addition to warehouse, rein.-con. and tile, plain foundation. $60,000. Work will probably be done by day labor next spring.

Wis., Cudahy—Cudahy Bros. Co. opens bids about Dec. 26, 1 story, 80 x 190 ft. box factory, concrete and brick, plain foundation. A. Lindstrom, c/o owner, archt. Noted Dec. 8.

Wis., Dundas—Calumet Packing Co., 309 Michigan Ave., Sheboygan, having plans prepared by W. C. Weeks, archt., 720 Ontario Ave., Sheboygan, 3 story, 50 x 50 ft. canning plant, brick, rein.-con. and tile, plain foundation, here. $45,000. C. H. Peacock, secy. Noted Nov. 24.

Wis., Fond du Lac—Northern Wisconsin Oil Co., DePere St., Menasha, having plans prepared 1 story, 30 x 40 ft. and 60 x 60 ft. warehouse and filling station, brick and concrete, plain foundations, Main and Arndt Sts. $40,000. Private plans.

Wis., Kenosha—Nash Motor Co., c/o W. A. Gross, engr., Kenosha, plans ren.-con., brick and steel gas plant, concrete pile foundation. $100,000. Architect not selected.

Wis., Milwaukee—H. J. Esser, archt., 82 Wisconsin St., opens bids about Dec. 30. 7 story, 80 x 160 ft. brick and steel factory, plain foundation, Reed St., for Harsh-Chapline Shoe Co., 694 Hanover St. $160,000.

Wis., Milwaukee—R. E. Oberst, archt., 307 Grand Ave., opens bids about Dec. 27. 2 story, 30 x 80 ft. bakery, brick, on Center St. $40,000. Owners name withheld.

Wis., Milwaukee—Wisconsin Ice & Coal Co., 216 West Water St., having preliminary plans prepared by R. Messmer & Bros., archts., 221 Grand Ave., 2 story, brick and timber plant, plain foundation. $145,000.

Wis., Neenah—Jersild Knitting Co., 331 North Commercial St. plans 2 story, 60 x 120 ft., brick, rein.-con. and steel knitting mill Commercial St. $100,000. Architect not selected.

Ia., Bedford—J. J. Clarke, J. H. Baker, W. E. Crown, Jr., and J. Satters, all of Bedford, are members of finance committee which is forming company to build ice and cold storage plant, brick, steel and rein.-con. $200,000. Architect not selected.

Ia., Muscatine—City plans electric light plant, brick and concrete. $250,000. R. S. McNutt, mayor. Engineer not selected.

Mo., Monett—Hammond Dehydration Co. having plans prepared by Heckenlively & Marks, archts., Landers Bldg., Springfield, 2 story plant, Bway. $50,000.

Mo., St. Louis—J. H. Belz Provision Co., 2035 Gravois Ave., having plans prepared 4 story, 36 x 46 ft. cooler building, rein.-con. and brick, 3601 South Bway. $40,000. Tait & Nordmeyer Eng. Co., 1107 Clark St., engrs.

Cal., Fresno—Sugar Pine Lumber Co., 1st Natl. Bank Bldg., San Francisco, prepared plans for lumber mill, here. $2,500,000.

Cal., San Francisco—W. N. Moore & Co., 7 Front St., having plans prepared by G. W. Kelham, archt., Sharon Bldg., 8 story, wholesale dry goods plant, Fremont and Mission Sts.

Cal., San Jose—Supervs. Santa Clara Co. having plans prepared by Binder & Curtis, archts., 255½ South 1st St., 3 story, rein.-con. service building addition, incl. laundry, engine room, cold storage plant, X-ray rooms, laboratories, etc., on County Hospital Grounds, here. $60,000.

Ont., Ottawa—Hamilton Tar & Ammonia Co. plans factory, Lees Ave. $50,000. W. M. Currie, pres.

BIDS DESIRED

Mass., Worcester—Dec. 27, by Cutting, Carleton & Cutting, archts., 44 Front St., 5 story, 68 x 138 ft., warehouse, rein.-con. and brick, Franklin St., for Atherton-Fowler Furniture Co., 133 Front St. $150,000.

N. Y., Middletown—Jan. 11, by State Hospital Comn., Albany, storehouse at Middletown State Homepathic Hospital, here. L. F. Pilcher, Albany, state archt.; adv. this issue.

N. J., Pleasantville—Jan. 2, by Pennsylvania Motors Corp., c/o H. W. Sofield, 1719 North Broad St., Phila., 1 story, 50 x 300 ft. factory and power plant, rein.-con., brick and steel, plain foundation, here. $125,000. C. Donehower, Pleasantville, engr.

N. J., West New York—Dec. 31, by P. L. Shultz, archht., 400 Lewis St., Union Hill, 1 story, 100 x 150 ft. mirror factory, rein.-con., 13th St. and Park Ave., here, for S. Denier & Son, 15 Crosby St., New York. $50,000.

Pa., Phila.—Jan 3, by L. B. Rothchild, archt., 1225 Sansom St., 2 story, 64 x 144 ft. rein.-con., brick and steel storage building, plain foundation, Glenwood Ave. and Oxford St., for C. Kahn, Morris Bldg. Cost to exceed $100,000.

O., Cleveland—J. M. Sands, 5407 Sweeney Ave., taking bids 2 story, 55 x 61 ft., brick and steel factory addition, plain foundation, East 103rd St. and Harvard Ave. $40,000. L. M. Druckenbrod, 1122 East 125th St., archt.

Wis., Racine—E. L. M. Tire Co., Deane Blvd., receiving bids 2 story, 80 x 132 ft. brick and wood addition to factory, plain foundation. $50,000. Noted Dec. 1.

N. D., Fargo—Jan. 19, Stone Ordean & Wells, 201 South 5th Ave., W., Duluth, Minn., 2 story, 72 x 175 ft. warehouse, rein.-con., brick and tile, here. $60,000. Keith & Kurke, Fargo, archts.

CONTRACTS AWARDED

Mass., Boston—M. Rudnick, 40 Court St., 2 story, 100 x 120 ft. sales and service station, rein.-con., 872-8 Commonwealth Ave., by day labor. $120,000.

O., Cleveland—A. Horwitz, Society for Savings Bldg., 1 story, 90 x 111 ft., brick and steel garage, plain foundation, 2075 East 77th St., to J. Kravitz, 991 Parkwood Dr., $40,000.

O., Cleveland—P. Matzinger & Co., archts., Caxton Bldg., 1 story, 60 x 180 ft., brick and steel factory and warehouse,

Industrial Works (Continued)

plain foundation, 6600 Sideway Ave., to A. W. Laws, 2206 East 93rd St., for Cleveland Refrigerator Co., 2296 East 72nd St. $50,000. Noted Dec. 15.

O., Columbus—Carroll Chain Co. 1 story, 50 x 160 ft., brick factory, 7th and Hosack Sts., to E. K. Hibbs, 1153 Neil Ave., $50,000.

Ind., Franklin—D. M. Hoagland Co., Scottsburg, 3 story, 130 x 134 ft. brick factory, to R. Bryant, Strickler Bldg., Franklin, $75,000.

Ill., Chicago—Chicago Wool Co., 18 West Austin Ave., 4 story, 80 x 208 ft. warehouse, brick and timber, along Chicago River at Clybourn Junction, to Lindahl-Franzen Constr. Co., 139 West Washington St., $400,000.

Ill., West Chicago—E. Blake, archt., 810 Davis St., Evanston, 1 story, 80 x 300 ft. condensing plant, brick and steel, to Great Lakes Constr. Co., 308 South Wabash Ave., Chicago, for Reid-Murdock & Co., Clark St. Bridge, Chicago, $40,000. Noted Nov. 24.

Ill., Zeigler—Zeigler Ice & Bottling Co., 2 story, 93 x 105 ft. ice plant, rein.-con. and brick, by day labor. $50,000. Noted Nov. 24.

Wis., Green Bay—Ford Howard Paper Co., South State St., 3 story, 100 x 120 ft., brick and rein.-con. machine shop, plain foundation, South State St., to L. H. Hansen Co., 113 West Walnut St., $200,000.

Wis., Green Bay—Green Bay Investment Corp., 113 West Walnut St., 3 story, 82 x 240 ft. cold storage plant, rein.-con. and brick, North Bway., to L. M. Hansen Co., 113 West Walnut St., $250,000.

Wis., Milwaukee—Alliance Investment Co., 115 Wisconsin St., 1 story, 60 x 120 ft. concrete and brick garage, plain foundation, Bway., to W. W. Oeflein, 86 Michigan Ave., $40,000. Noted Dec. 1.

Wis., Milwaukee—G. J. Meyer Mfg. Co., 576 Clinton St., plans 2 story, 60 x 100 ft., brick storage plant, plain foundation, Clinton St., to C. B. Danielson, 638 Mineral St. $40,000.

Wis., Racine—Bondgard & Christensen, 2222 Kinzie Ave., 4 story, 100 x 150 ft. rein.-con. and brick warehouse, plain foundation, by day labor. $100,000. A. A. Guilbert, Janes Bldg., archt.

Wis., Sheboygan—Leverenz Shoe Co., 830 Alabama Ave., 1 story, 50 x 60 ft., rein.-con., brick and steel factory, plain foundation, Alabama Ave., to J. W. Mai, 1319 11th St. $45,000.

Wis., Sheboygan — Wisconsin Mirror Plate Co., 20th and Maryland Sts., 2 story, 60 x 118 ft., rein.-con., brick and steel factory, plain foundation, Indiana Ave., to Verhulst Bros. Co., Erie Ave., $150,000.

Minn., Minneapolis—State Bd. Control, Capitol Bldg., St. Paul, 3 story mines experiment station, rein.-con., brick, tile and stone, at State University, general contract to J. Peterson, 3152 10th Ave., S., $192,800; heating, Belden-Porter-Gray Co., 914 La Salle Ave., $20,680. Noted Dec. 15.

Cal., Calwa—Pacific Fruit Express Co., 65 Market St. San Francisco, rein.-con. addition to ice plant, to D. R. Wagner, Call Bldg., San Francisco, $52,050.

Cal., Oakland—M. Stulsaft & Co., 647 Mission St., San Francisco, 2 story, rein.-con. warehouse, 11th St. between Harrison and Alice Sts., to H. P. Hoyt, Monadnock Bldg., San Francisco, $75,000.

Buildings

PROPOSED WORK

Mass., Boston—Hotel — The Bostonian, Inc., 75 State St., having sketches made by Desmond & Lord, archts., 15 Beacon St., and G. B. Post, associated archt., 101 Park Ave., New York, 10 story, brick, steel and stone, plain foundation, Arlington and St. James Sts. $5,000,000.

Conn., Norwich—Theatre and store—H. S. Goldfadden, 388 West Main St., plans 3 story brick, steel and rein.-con., Bway. $150,000. Architect not announced.

Conn., Watertown—Church—Italian Congregational Church plans 2 story, brick and steel, Union and South Elm Sts. $150,000. Architect not announced.

Conn., Winsted — High School — School Bd. plans 2 story, brick. $150,000. Coffin & Coffin, 522 5th Ave., New York, archts.

N. Y., Bath—Theatre, Store and Office—S. Carver, Empire Theatre, 168 Pearl St., Buffalo, had plans prepared by M. Miller, archt., 80 West Genesee St., Buffalo, 3 story, 60 x 225 ft., concrete, brick and steel, Liberty St., here. $200,000.

N. Y., New York—Apartment and Hotel—Estate of E. J. Van Ingen, c/o Cross & Cross, archts. and engrs., 681 5th Ave., soon takes bids 13 story, 40 x 100 ft., brick, steel and stone, plain foundation, 77th St. and 5th Ave. $400,000. Noted Nov. 17.

N. Y., New York—Office and Loft—Roy Realty Co., Madison Ave. and 29th St., having sketches made by D. Wortman, archt. and engr., 116 Lexington Ave., 4 story, 75 x 100 ft., Madison Ave. and 29th St. $200,000.

N. Y., Utica—Hospital—Faxton Hospital Assn., 1676 Sunset Ave., having sketches made by York & Sawyer, archts., 50 East 41st St., New York, steel or concrete frame, Newell St. $300,000. Noted March 31.

N. J., Camden—Hotel and Store—Hotel Co., Inc., c/o L. W. MacCleske, 503 Market St., soon takes bids 15 story, 100 x 180 ft., rein.-con., brick and steel, plain foundation, 7th and Federal Sts. $1,000,000. K. Ellington, 230 5th Ave., Pittsburgh, Pa., archt.

N. J., Jersey City—School—C. F. Long, archt., 665 Newark Ave., preparing plans and takes bids about Jan. 15, 3 story, 70 x 123 ft. parochial school, brick and granite. Owner's name withheld.

N. J., Newark—Temple—Salaam Temple, A. A. O. N. M. S., 1020 Broad St., having sketches made by J. Green, archt., 31 Clinton St., and F. Grad, Archt., 245 Springfield Ave., brick and stone, plain foundation, Broad St. $1,000,000.

N. J., Newark—Y. M. H. A., c/o F. Grad, archt. and engr., 245 Springfield Ave., soon lets contract 96 x 176 ft., brick, steel and stone, High and West Kinney Sts. $500,000. Noted Sept. 15.

Pa., Allentown—Hotel—Queen City Hotel Co., c/o C. J. Otto, 130 North 7th St., having preliminary plans prepared by Ritter & Shay, archts., North Amer. Bldg., Phila., 14 story, 250 room, rein.-con., brick and steel, plain foundation, 133 North 7th St. $1,100,000.

Pa., Erie—Office and Store—Estate of W. E. Scott having plans prepared by C. H. Porter & Sons, archts., 73 West Eagle St., Buffalo, N. Y., altering and building addition to 6-story, 80 x 120 ft. $150,000.

Pa., Phila.—Apartment—D. Crawford, Jr., 701 North 63rd St., takes bids early in 1922, 10 story, 150 x 220 ft. rein.-con., brick, steel and stone, plain foundation, 39th and Chestnut Sts. $500,000. Private plans.

Pa., Phila.—Theatre—Willard Theatre Co., c/o C. Olschlager, archt., 1615 Walnut St., soon takes bids 1 story, 65 x 125 ft. rein.-con., brick and steel, plain foundation, 40th and Market Sts. $150,000.

Pa., Wilkesbarre—Studio—A. G. Kuehn Motion Picture Co. Inc., had plans prepared by H. G. Cook, Jr., archt., 716 Miners Bank Bldg., 2 story, rein.-con., brick and steel, plain foundation. $750,000.

Md., Batterton — Recreation — Colonial Hotel Co., c/o J. Bolachow, 359 Calvert Bldg., Baltimore, having plans prepared by J. Freund, archt., 1307 St. Paul St., Baltimore, 3 story, brick and concrete, here.

D. C., Wash.—Cathedral, etc.—Episcopal Cathedral having plans prepared by Forhman, Ronn & Little, archts., 24 Mt. Vernon St., Boston, and Crain & Ferguson, engrs., 15 Beacon St., Boston, for cathedral, and group of 30 buildings, incl. synod hall, library, guest house and clergymen's residences, etc., brick, granite and Indiana limestone, at St. Alban's. Completion of foundations, $400,000. Total $15,000,000.

W. Va., Wheeling—Hotel—Tri-State Security Co., 1129 Market St., having preliminary plans prepared by H. E. Shimmon, archt., 2031 Euclid Ave., Cleveland, O., 12 story, 68 x 125 ft., concrete, brick and steel, 14th and Market Sts. $1,000,000.

O., Akron—Office—Mills Sq. Realty Co., c/o G. A. Grieble, archt., 9th Garage Bldg., Cleveland, having plans prepared 11 story, brick, steel and concrete, plain foundation, Main and Bowery Sts., here. $4,500,000.

O., Cleveland — Church—Epworth-Euclid Methodist Church, c/o E. A. Petriquin of Petriquin Paper Co., 1250 West 3rd St., having plans prepared by W. E. Hunter, archt., 1436 Washington Blvd., Detroit, Mich., 1 story, 100 x 150 ft., brick steel and stone, plain foundation, East 107th St. and Rockefeller Blvd. $250,000.

O., Cleveland — Commercial—Euclid-30th Realty Co., c/o E. McGeorge, archt., 1900 Euclid Ave., had plans prepared 4 story, 40 x 180 ft., brick, steel and concrete, plain foundation, Euclid Ave. near 30th St. $200,000. Noted Sept. 22.

O., Cleveland—Commercial and Market—Superior-120th Market Co., c/o T. G. Sloan, Sloan Bldg., had plans prepared by G. A. Grieble, archt., 9th Garage Bldg., 1 story, 120 stall, brick, steel and concrete, plain foundation, East 120th St. and Superior Ave. $200,000.

O., Cleveland—Office—Superior-12th Co., c/o G. A. Grieble, archt., 9th Garage Bldg., having plans prepared 12 story, brick, steel and concrete, plain foundation, East 12th St. and Superior Ave. $2,500,000.

O., Dayton—Theatre—Natl. Cash Register Co., Main and K Sts., plans to convert schoolhouse into theatre or new 2 story, brick, rein.-con. and steel, South Main St. Cost between $150,000 and $500,000. H. K. Ferguson, 6523 Euclid Ave., Cleveland, archt.

O., Dayton—Theatre and Office—M. Loew, Inc., 1540 Bway., New York, having plans prepared by T. W. Lamb, archt. and engr., 644 8th Ave., New York, brick, steel and stone, plain foundation, here. $500,000.

O., Delaware — Gymnasium — Ohio Weslyan University plans Watson Memorial, 3 story. $300,000.

Ind., Albion—School—C. Gatwood, trustee, having plans prepared by R. L. Simmons, archt., 201 South Main St., Elkhart, 2 story, 75 x 90 ft., brick, rein.-con. and terra cotta. $150,000.

Ind., Beech Grove—Bank—Beech Grove Natl. Bank plans brick, stone and steel. $150,000. Architect not selected.

Ind., Bloomfield — Hotel and Store — O. Schrier plans brick. $150,000. Private plans.

Ind. Bloomington — Dormitory — Bd. Trustees Indiana University having plans prepared by Lowe & Bollenbacher, archts., 108 South LaSalle St., Chicago, 2 story, 90 x 125 ft., brick. $150,000.

Ind., Bloomington—Union—Bd. Trustees Indiana University plans 2 story, brick, stone and steel. $225,000. Architect not selected.

Ind., Cayuga—School—J. Davis, trustee, having plans prepared by Johnson, Miller & Miller, archts. 30 North 5th St., Terre Haute, 2story, 90 x 115 ft., brick. $150,000.

Ind., Claypool—School—E. E. Kinsey, trustee, having plans prepared by Griffith & Goodrich, archts., 211 East Berry St., Ft. Wayne, 2 story, 105 x 106 ft., brick. $150,000.

Ind., Elkhart — Hotel — Elkhart Hotel Corp., having plans prepared by Nicol, Scholer & Hoffman, archts., 212 Murdock Bldg., Lafayette, 6 story, 83 x 139 ft., brick and steel. $350,000.

Ind., Ft. Wayne—Business—First and Hamilton Natl. Bank having revised plans prepared by T. M. James, archt., 3 Park St., Boston, Mass., 13 story, 90 x 150 ft., brick and steel. $1,000,000.

Ind., Ft. Wayne—Hotel—Keenan Hotel Co. having revised plans prepared by C. R. Weatherhogg, archt., Citizens Trust Bldg., 14 story, 90 x 110 ft., concrete, brick and steel, Harrison and Washington Sts. $750,000. H. J. Keenan, mgr.

Ind., Frankfort—Hospital—Bd. Trustees Memorial Hospital and Comrs. Clinton Co. having plans prepared by R. Leonard, archt., Peoples Life Bldg., 3 story, 80 x 120 ft., brick and stone. $150,000.

Ind., Indianapolis—Apartment—Fairfield Manor Apartment Corp., 2306 Fairfield Ave., having plans prepared by C. R. Weatherhogg, archt., Citizens Trust Bldg., 6 story, 60 x 182 ft., brick, Washington St. $750,000.

Ind., Indianapolis — Club — Indianapolis Athletic Club having revised plans prepared by R. F. Daggett, archt., Lemcke Annex, 11 story, 100 x 127 x 200 ft. rein.-con., brick and steel, Vermont and Meridian Sts. $500,000. Noted May 12.

Ind., Indianapolis — Hotel — Bellevue Baths & Hotel Co., 807 Odd Fellows Bldg., having plans prepared by F. S. Cannon, archt., 21 Virginia Ave., 5 story, 60 x 175 ft., brick and steel, West Washington St. $200,000.

Ind., Indianapolis — Office — Guarantee Building Corp., Fletcher Trust Bldg., having plans prepared by Rubush & Hunter, archts., Amer. Central Life Bldg., 12 story, brick and steel, Meridian St. and Monument Pl. $750,000.

Ind., Lafayette—Church—St. Lawrence Congregation having plans prepared by Riedel & Zink, archts., Lafayette, 2 story, 56 x 120 ft., brick and stone. $150,000.

Buildings (Continued)

Ind., Martinsville—Sanitarium—Martinsville Springs Hotel and Sanitarium Co., c/o A. Gribble, with E. Sluss, 701 Fletcher Trust Bldg., Indianapolis, having plans prepared by Z. H. Dietz, archt., 301 Public Savings Bldg., Indianapolis, 2 story, 110 x 125 ft., brick, Cunningham Hill. $200,000.

Ind., Michigan City—Theatre—Michigan Theatre Co. having plans prepared by H. L. Newhouse, archt., 4620 Prairie Ave., Chicago, 3 story, 60 x 125 ft., brick and terra cotta, Franklin St. $150,000.

Ind., Milford—School—L. Fisher, trustee, having plans prepared by R. L. Simmons, archt., 201 South Main St., Elkhart, 2 story, 80 x 80 ft., brick. $150,000.

Ind., South Bend—Bank and Office—Amer. Trust Co. having plans prepared by Hoggson Bros., 485 5th Ave., New York, and 38 South Dearborn St., Chicago, 3 story, 25 x 85 ft., terra cotta, brick and steel, Michigan and Washington Sts. $150,000.

Ind., South Bend—School—Bd. Educ. having plans prepared by Freyermuth & Maurer, archts., 654 Farmers Trust Bldg., 2 story, 135 x 200 ft., brick and stone. $600,000.

Ind., Valparaiso — School — J. Bell, trustee, having plans prepared by R. L. Simmons, archt., 210 Main St., Elkhart, 2 story, 59 x 84 ft., brick and steel. $150,000.

Mich., Detroit—Office—Bd. Educ. and Library Comn., 1354 Bway. Ave., having plans prepared by Malcomson, Higginbotham & Palmer, archts., 405 Moffat Bldg., 20 story, 150 x 250 ft. rein.-con., brick and steel, caisson foundation, Gratiot Ave. and Farmer St. $1,000,000.

Mich., Detroit—Office—Columbia Realty Co., c/o M. Harrison and L. A. Turnock, archts., 500 Bd. Trade Bldg., Indianapolis, Ind., having plans prepared 15 story, 93 x 160 ft. rein.-con., brick, steel and tile, Clifford and Columbia Sts. $750,000.

Mich., Detroit—School—Bd. Edu 1354 Bway Ave., having plans prepared by Malcomson, Higginbotham & Palmer, archts., 405 Moffat Bldg., 2 story, rein.-con., brick, steel and stone, plain foundation, Cass Ave. and Peterboro St. $150,000.

Mich., Niles—Hotel—Estate C. Chapin, c/o Niles City Bank, plans 2 story, rein.-con., brick and steel. $500,000. C. Smith, secy. A. N. Rebori, 410 South Michigan Ave., Chicago, archt.

Mich., Port Huron—Church—St. Josephs Catholic Parish, having preliminary plans prepared by Donaldson & Meier, archts., 1314 Penobscot Bldg., Detroit, 1 story, brick, steel and stone, plain foundation, Erie St. $200,000.

Ill., Cairo—Temple—Masonic Lodges, c/o H. S. Antrim, chn. Bd. Trustees, plan 3 story, 70 x 130 ft. brick, steel, rein.-con. and stone. $150,000. Architect not selected.

Ill., Carthage—Science Hall—Lutheran College having plans prepared by G. King, archt., 1513 Walnut St., Phila., Pa., 2 story, brick, stone, rein.-con. and steel. $175,000. H. D. Hoover, pres.

Ill., Chicago—Apartment—P. F. Olsen, archt., 127 North Dearborn St., preparing plans and soon receives bids 3-story, 122 x 250 ft., rein.-con., brick and steel, Newgart and North Shore Ave. $500,000. Owners name withheld.

Ill., Chicago—Apartment Hotel—Morton Constr. Co., archts. and owners, 127 North Dearborn St., soon takes bids 14 story, 167 x 240 ft., rein.-con., brick and steel, Sheridan Rd. and Wellington St. $3,000,000.

Ill., Chicago—Court—Plans 14 story, 100 x 150 ft., rein.-con., brick, stone and steel, Harrison St. and Plymouth Court. $2,500,000. C. W. Kallal, City Hall, archt.

Ill., Chicago—Hotel—J. A. Carroll & Bros., 1533 East 53rd St., having plans prepared by W. P. Doerr, archt., 28 East Jackson Blvd., 10 story, 70 x 140 ft., rein.-con., brick and steel, 53rd St. and Hyde Park Blvd. $2,000,000.

Ill., Marengo—High School—Marengo Community High School Dist. having plans prepared by Peterson & Johnson, archts., 406 Swedish Amer. Bank Bldg., Rockford, 2 story, rein.-con., brick and stone. $150,000. Noted Oct. 27.

Ill., Murphysboro—Hall and Auditorium—City, c/o J. M. Davis, mayor, having plans prepared by Bill & Frath, archts., Murphysboro, 3 story, 50 x 100 ft., brick, steel, rein.-con. and stone. $150,000.

Ill., Murphysboro—Hotel—C. L. Ritter, 1208 Walnut St., plans 100 room, brick, steel and rein.-con., $200,000. Architect not selected.

Ill., Pocahontas—High School—Bd. Educ. having plans prepared by J. W. Kennedy, archt., Cohokia Bldg., East St. Louis, 2 story, 69 x 106 ft., brick, stone and rein.-con. $150,000. A. R. Powell, secy.

Ill., Rockford — Cathedral and Nuns' Home—Roman Catholic Diocese, c/o P. J. Muldoon, Bishop, 1704 Natl. Ave., plans cathedral and nuns' home stone and concrete. $1,500,000. Architect not selected.

Ill., Rockford—High School—Bd. Educ. having plans prepared by Peterson & Johnson, archts., Swedish Amer. Bank Bldg., 3 story, 76 x 172 ft., brick and concrete. $250,000.

Ill., Sibley — High School — Bd. Educ., Dist. 48, having plans prepared by A. L. Pillsbury, archt., 710 Peoples Bank Bldg., Bloomington, 2 story, brick, steel, rein.-con. and stone. $150,000.

Ill., Zion—Tabernacle and Store—Zion Institutions and Industries, Administration Bldg., plans 1 story, 150 x 250 ft. tabernacle, and 2 story, 125 x 300 ft. department Store, Elijah Ave., both rein.-con., steel, brick and stone. $225,000 each. W. H. Clendinnen, general mgr. Private plans.

Wis., Kaukauna—High School—School Bd. had plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, and takes bids latter part of January, 1 and 2 story, 60 x 60 ft. and 95 x 189 ft. brick, concrete and tile, plain foundation. $175,000. L. G. Schussmann, supt.

Wis., Racine—Temple—Masonic Temple Assn., c/o F. L. Norton, 1145 Main St., having plans prepared by E. B. Funston Co., archts., Janes Bldg., 2 or 3 story, 100 x 125 ft., rein.-con., brick and stone, plain foundation, Main St. $185,000.

Wis., Sparta—High School—Dist. 1, having plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, 3 story, concrete, brick and tile, plain foundation. $200,000. Noted Dec. 15.

Wis., Waupun—High School—Bd. Educ., c/o B. Kastein, clk., plans 4 story, 65 x 200 ft., rein.-con., brick and steel, plain foundation. $300,000. Architect not selected.

Ia., Ft. Madison—Prison—State Prison Comn., Des Moines, plans brick, steel, stone and rein.-con. addition to State Prison, here. $150,000. Architect not selected.

Ia., Red Oak—Church—Presbyterian Congregation plans 1 story, 90 x 120 ft., brick, steel, rein.-con. and stone. $150,000. W. C. Rathcliffe, chn. building com. Architect not selected.

Mo., Joplin — High School — Bd. Educ., c/o J. Wolfe, secy., Bartlett Bldg., plans 3 story, veneer brick, concrete pile foundation. $400,000. Architect not selected.

Mo., Sedalia—High School—Bd. Educ. plans Junior High School. $400,000. F. R. Morley, secy. Architect not selected

Col., Denver—Consistory—Colorado Consistory No. 1, Masonic Temple, appropriated $450,000 for consistory building, 14th and Grant Sts.

Col., Denver — School — University of Denver takes about Feb. 15, 2 story (ultimately 4 story), 60 x 140 ft., terra cotta, stucco and brick, concrete foundation, facing Civic Center. $150,000. W. N. Bowman, Central Savings Bank Bldg., archt.

Cal., Fresno—Office—Brix Estate having plans prepared by E. Mathewson, archt., Cory Bldg., 6 story, 100 x 150 ft., rein.-con. and brick, North J St. $350,000. H. J. Brunnier, Sharon Bldg., San Francisco, engr.

Cal., San Francisco—Hotel—Clift Hotel Co., Geary and Taylor Sts., having plans prepared by G. A. Applegarth, archt., Claus Spreckels Bldg., 14 story addition. $750,000. F. C. Clift, pres.

Que., Quebec—Hotel—Canada Hotel Co., c/o Anglin—Norcross, Ltd., 65 Victoria St., Montreal, plans 10 story, 300 room, concrete, brick and steel, rock foundation, St. John St. $1,000,000.

BIDS DESIRED

Conn., New Haven—Church—St. Brendans Roman Catholic Church, 380 Sherman Ave., receiving bids 1 story, 85 x 180 ft., brick, steel and stone, Whalley and Ellsworth Aves. $175,000. Whiton & McMahon, 36 Pearl St., Hartford, archts. Noted Oct. 27.

N. Y., Brooklyn—Apartments—Kellner Bros., c/o C. B. Meyers, archt. and engr., 31 Union Sq., New York, two 5 story, brick, steel and stone, plain foundations, Eastern Parkway and Washington Ave., here. $600,000. Work will be done by separate contracts.

N. Y., New York—Apartment—Ausable Realty Co., c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, brick, steel and stone, plain foundation, Academy St. $175,000. Work will be done by separate contracts.

N. Y., New York—Apartment—J. Pearlbinder, c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, brick, steel and stone, plain foundation; 172nd St. and Longfellow Ave. $175,000. Work will be done by separate contracts.

Pa., Harrisburg—School—Jan. 6, by Bd. Educ., 121-123 Chestnut St., 2 story, 80 x 200 ft., 3rd and Division Sts. Bids now for two of three units of new senior high school, to include superstructure, foundation and shop. Bids later for boiler rooms, cafeteria and rear of main structure. $300,000. C. H. Lloyd, Suite 701, Telegraph Bldg., archt.

Pa., Phila.—Art Museum—Dec. 24, by H. Trumbauer, archt., Land Title Bldg., 2 story, rein.-con., brick, steel and stone, on Parkway, for Museum of Art. c/o Comn. of Fairmount Park, City Hall.

Pa., Phila.—Church—Dec. 28, by Day & Klauder, archts., 925 Chestnut St., 1 story, 74 x 99 ft. brick, steel and stone addition, plain foundation, Green and Coulter Sts., for 2nd Church of Christ's Science, 5443 Green St. $160,000. Noted July 7.

Pa., Phila.—Hospital—J. T. Windrim, archt., Commonwealth Bldg., receiving bids 5 story, 88 x 201 ft. rein.-con., brick, steel and stone, plain foundation, Powelton and Saunders Aves., for Presbyterian Hospital. $300,000.

W. Va., Charleston—Temple—Jan. 3, by Rapp & Rapp, archts., 190 North State St., Chicago, 4 story, 110 x 200 ft., rein.-con., brick and steel, for Beni-Kebam Shrine, c/o J. C. Ruffner. $700,000. Noted Oct. 13.

Tenn., Cookeville — Dormitory — Jan. 5, by J. B. Brown, supt. instruction, State Bd. Educ., Nashville, 2 story, brick and rein.-con., at Tennessee Polytechnic Institute, here. $150,000. Daugherty & Gardner, Stahlman Bldg., Nashville, archts.

O., Cleveland—Commercial and Apartment—F. W. Striebenger, archt., 1900 Euclid Ave., taking bids 4 story, 150 x 172 ft., brick, steel and concrete, plain foundation, Euclid Ave. and Ford Dr., for C. L. Streich, 11400 Euclid Ave. $200,000. Noted Dec. 15.

O., Dayton—School—Dec. 27, by Bd. Educ., 2 story addition, rein.-con. and brick, 4th and Huffman Sts. $150,000. W. M. Hunter, pres. Private plans.

O., Elyria—Bank and Office—Dec. 27, by Elyria Savings & Trust Co., 7 story, 52 x 113 ft., brick, steel and concrete, plain foundation, Broad St. $300,000. Walker & Weeks, 1900 Euclid Ave., Cleveland, archts. Noted July 7.

Ind., Butler—High School—Jan. 3, by Bd. Educ., 2 story, 57 x 125 ft., brick. $150,000. A. H. Ellwood & Son, Haynes Bldg., Elkhart, archt. Noted Dec. 15.

Ind., Indianapolis—Club—Highland Golf Club, c/o Indianapolis Water Co., 113 Monument Pl., receiving bids 2 story, 80 x 110 ft., stucco, concrete and hollow tile. $150,000.

Ind., Newcastle—Asylum—Jan. 17 by Indiana Village of Epileptics, for 1 story, 64 x 100 ft. laundry, 1 story, 60 x 74 ft. power plant, 1 story, 48 x 80 ft. recreation building, 1 story, 46 x 82 ft. dining room, 2 story, 42 x 83 ft. main building, six 1 story cottages, 38 x 106 ft. each, 2 story, 24 x 86 ft. hospital, 2 story, 32 x 86 ft. receiving building, 1 story, 32 x 89 ft. industrial building, brick and rein.-con. $400,000. H. Folyz, 843 Lemcke Annex, Indianapolis, archt. McMeans & Tripp, 510 Majestic Bldg., Indianapolis, engrs. Noted May 12.

Ind., South Bend — Theatre — Palace Theatre Co. receiving bids 3 story, 110 x 125 ft., brick, concrete and steel, Colfax Ave. $900,000. J. S. Aroner & Co., 304 South Wabash Ave., Chicago, archts. Noted Apr. 21.

Ind., Terre Haute — Hospital — St. Anthony's Hospital, 1021 South 6th St., receiving bids 4 story, 45 x 120 ft., brick, College Ave. $200,000. J. G. Vrydaugh, 1515 South 8th St., archt. Noted Dec. 15.

Ind., Warsaw—School—Dec. 31 by E. Smith, trustee, 2 story, 86 x 111 ft., brick and terra cotta. $150,000. Griffith & Goodrich, Ft. Wayne, archts. Noted Dec. 15.

Mich., Grand Rapids—School—Jan. 18, at office H. H. Turner archt., Michigan Trust Bldg., building Stocking School. G. A. Davis, pres. Bd. Educ.; adv. this issue.

Buildings (Continued)

Mich., Grand Rapids—School—Jan. 24, at office Robinson & Campau, archts., Michigan Trust Bldg., building Sibley School. G. A. Davis, pres. Bd. Educ.; adv. this issue.

Mich., Grand Rapids—School—Jan. 30, at office Williamson, Crow & Proctor, archts., Gilbert Bldg., vocational school. G. A. Davis, pres. Bd. Educ.; adv. this issue.

Ill., Chicago—Office—A. C. Thompson, Great Northern Bldg., receiving bids remodeling 10 story, 60 x 81 ft. brick, Washington and Wells Sts. $200,000. Dickworth Bros., Scranton, Pa., archts.

Wis., Institute (Sturgeon Bay P. O.)—School—Jan. 17, by Consolidated School Dist. 2, and Smith & Reynolds, archts., Dempsey Bldg., Manitowoc, superstructure for high and grade school, concrete and brick, plain foundation. Cost between $100,000 and $150,000.

Wis., Madison—Hospital—Jan. 24 (change of date), by University of Wisconsin, 6 story, 150 x 250 ft., brick, rein.-con. and stone, Warren St. $1,200,000. A. Peabody, Capitol Bldg. archt. Noted Dec. 8.

Wis., Madison—Store—A. A. Kelly, owner, and A. E. Small, archt., Ellsworth Bldg., receiving bids 2 story, 80 x 140 ft., brick, rein.-con. and steel, plain foundation, University Ave. $150,000.

Wis., Manitowoc—School—Jan. 10 by Smith & Reynolds, archts., Manitowoc, 2 story, 89 x 159 ft., rein.-con., brick and steel, plain foundation, for Manitowoc Co. Teachers Training Assn. $150,000.

Wis., Marathon—Dormitory and School—Jan. 10 by H. T. Liebert, archt., 69 Wisconsin St., Milwaukee, 2 story, brick and tile, plain foundation, for St. Anthony Monastery. Steel to C. Hennecke Co., 1353 North Pierce St., Milwaukee. Total $150,000. Noted Oct. 20.

BIDS RECEIVED

Pa., Byberry (Phila. P. O.)—Infirmary—Dept. Pub. Health, City Hall, 2 story, 67 x 139 ft. with two 31 x 95 ft. wings, brick and steel, plain foundation, from J. P. Kelly, 2313 Walnut St., $191,946; Kober Constr. Co., 34 South 17th St., $198,000; F. M. Harris, 1520 Parrish St., $199,977. All bidders of Phila. Noted Oct. 6.

Minn., St. Paul—School—Dept. Educ., 4 story, 73 x 125 ft., rein.-con., brick, tile and stone, 14th St. near Jackson St., from Gauger-Korsmo Constr. Co., 301 Endicott Bldg., $169,882; Lovering & Longbotham, 336 Endicott Bldg., $187,757; F. C. Norlander, Metropolitan Bank Bldg., $198,500. Noted Dec. 8.

CONTRACTS AWARDED

Mass., Boston—Theatre and Store—Olympia Theatres, Inc., 142 Berkeley St., 1 story, 102 x 210 ft., brick, steel and concrete, Commonwealth and Gorham Aves., to Olympia Constr. Co., 142 Berkeley St., $250,000.

Mass., Everett—**High School**—Building Com., 4 story, 176 x 203 ft., brick, concrete and artificial stone, Bway., to F. G. Coburn, 294 Washington St., Boston, $425,500. Noted Dec. 15.

Conn., Meriden—Hospital—City Hospital, Cook Ave., remodeling present building and constructing 4 story, 45 x 150 ft., brick and concrete addition, to H. Wales Lines Co., 134 State St. $350,000. Noted Oct. 20.

N. Y., Brooklyn—Office and Show Rooms—Boyertown Burial Casket Co., 671 8th Ave., New York, 6 story, 50 x 55 ft., brick, steel and stone, Lafayette Ave. and South Felix Pl., here, to H. P. Wright Co., 201 East 43rd St., New York, $175,000. Noted Sept. 8.

N. Y., Brooklyn—School—Bd. Educ., 500 Park Ave., New York, P. S. 187, 12th Ave. between 64th and 65th Sts., here, to F. A. Clarke Co., 122 Livingston St., $543,600. Noted Dec. 15.

N. Y., New York—Apartments—Bailey Estate Properties, c/o M. Courland, archt. and engr., 47 West 34th St., eight 5 story, brick, steel and stone, plain foundations, Kingsbridge Rd., by day labor. $150,000 each.

N. Y., New York—Apartment—Belkind & Smith, c/oo C. Kreymborg, archt. and engr., 2534 Marion Ave., 5 story, brick, steel and stone, plain foundation, Longwood Ave. and Fox St., by day labor. $180,000.

N. Y., New York—Apartment—Boston Road Constr. Co., c/o C. Schaefer, archt. and engr., 394 East 150th St., 5 story, brick, steel and stone, plain foundation, Boston Rd., by day labor. $150,000.

N. Y., New York—Apartments—M. Halpern, c/o C. Kreymborg, archt. and engr., 2534 Marion Ave., two 5 story, brick, steel and stone, plain foundations, 180th St. and Davidson Ave., by day labor. $175,000 each.

N. Y., New York—Apartments—Estate of G. F. Johnson, Inc., 30 East 42nd St., six 5 story, brick, steel and stone, plain foundations, 156th St. and Leggett Ave., by day labor. $200,000 each. C. Kreymborg, 2534 Marion Ave., archt. and engr.

N. Y., New York—Office—Equitable Life Assurance Society, 120 Bway, having sketches made by Starrett & Van Vleck, archts. and engrs., 8 West 40th St., about 20 story, brick, steel and stone, concrete pile foundation, 7th Ave. between 31st and 32nd Sts. Contract for above let to Thompson-Starrett, 49 Wall St., $1,000000. Noted Sept. 29.

N. Y., New York—School—Bd. Educ., 500 Park Ave., alterations and additions to P. S. 41, Olinville Ave. and Magenta St., to M. F. Kelly Co., Inc., 33 Old Bway., $121,945. Noted Dec. 15.

N. J., Atlantic City—Apartment—M. Freeman, c/o S. Abramson, archt., 2313 Walnut St., Phila., 24 x 38 x 44 x 91 ft., brick and steel, plain foundation, 14 South New Hampshire Ave., here, to A. Needleman, 140 South Maryland Ave., $150,000.

N. J., Glassboro—Normal School—State Bd. Educ., State House, Trenton, to Du Pont Eng. Co., Wilmington, Del., **general** contract, 2 story, Leiperville greystone, brick and marble, $385,477; heating and ventilating equipment, $47,270. This corrects report in Dec. 15 issue.

N. J., Palmyra—High School—Bd. Educ. general contract 2 story, 124 x 154 ft., rein.-con., brick and steel, plain foundation, 5th St. and Delaware Ave., to G. W. Shauer & Sons, Palmyra, $124,817; heating and ventilating, to Mechanical Equipment Co., 1201 Sansom St., Phila., $27,744. Noted Nov. 10.

Pa., Phila.—Hotel and Church—Methodist Episcopal Church, c/o A. Berry, bishop, 1721 Arch St., 8 story, 60 x 114 ft. addition, rein.-con., brick and steel, plain foundation, 17th and Arch Sts., to Cramp & Co., Denkla Bldg., $500,000.

D. C., Washington—Chapel—Sisters of Notre Dame, Trinity College, chapel, to C. J. Cassidy Co., 700 10th St., N. W., $350,000.

N. C., Wilson—High School—Bd. Trustees, brick high school, general contract to W. P. Rose, Goldsboro, $180,202; heating and plumbing equipment to J. L. Powers, Bennettsville, S. C., $25,464. Noted Nov. 3.

O., Akron—Bank and Office—Warranty Security Discount Co., 65 South High St., 20 story, 65 x 70 ft., brick, steel and concrete, plain foundation, Main and Buchtel Sts., to W. Dunbar Co., 8201 Cedar Ave., Cleveland, $1,000,000.

O., Dayton—Schools—Bd. Educ. general contract 2 story, 15 room addition to Patterson School and 2 story, 8 room addition to Irving School, to A. R. Blagg Co., 1229 East 3rd St., $171,890 and $114,500 respectively; heating and power, to Columbus Heating & Ventilating Co., 425 West Town St., Columbus, $17,490 and $13,990 respectively. Noted Nov. 17.

O., Toledo—High School—Bd. Educ., Administration Bldg., 3 story, 251 x 343 ft., brick, steel and concrete, plain foundation, Western and Daniel Aves., to H. J. Spieker & Co., Elm and Utica Sts. $803,000. Noted Oct. 27.

Ind., Lafayette—Economic—Purdue University, 2 story, 75 x 244 ft., brick, to Krauel Constr. Co., Danville, Ill., $200,000.

Ind., New Albany—School—Bd. Educ., 2 story, 81 x 158 ft., brick, State St., to Bucheit Constr. Co., Camp St., Louisville, Ky., $150,000.

Mich., Detroit—Schools—Bd. Educ., 1354 Bway. Ave., rein.-con., brick and steel addition to Northwestern High School, Grand River Ave. and Grand River Blvd., to Culbertson & Kelly, 872 West Milwaukee Ave., $276,017; addition to O. W. Holmes School, Trenton Ave., to Corrick Bros., 507 Owen Bldg., $173,737; addition to Stephens School, Seneca Ave., to F. N. Cooper, Penobscot Bldg., $111,237. Noted Dec. 15.

Ill., Chicago—Office and Apartment—W. P. Doerr, archt., 28 East Jackson Blvd., 2 story, 130 x 166 ft., rein.-con., terra cotta, brick and steel, 79th St. and South Shore Dr., to J. S. Gillespie, 7259 Crandon Ave., for G. F. Nord and C. Ringer, c/o architect. Noted Nov. 24.

Ill., Chicago—Theatre—Tiffin Theatre Co., 4043 West North Ave., 3 story, 72 x 105 x 200 ft., rein.-con., brick and steel, 4053-59 West North Ave., to Home Constr. Co., 1743 North Crawford Ave., $400,000.

Ill., Rockford—Church, etc.—Emanuel Lutheran Congregation, 1 story, 60 x 132 ft., brick and stone, steel trusses, 3rd Ave. and 6th St., to Holm-Page Co., 2117 Kishwaukee St., $150,000. Noted Sept. 29.

Tex., Ft. Worth—School—For 2 story, 85 x 175 ft., brick, to Henger & Chambers, Slaughter Bldg., Dallas, $150,000.

Neb., Omaha—Office—Medical Building Assn., 826 Brandeis Theatre Bldg., 1 story, 88 x 132 ft., rein.-con., brick, stone and steel, 17th and Dodge Sts., to Selden Breck Constr. Co., 537 Keeline Bldg., $2,000,000.

Okla., Oklahoma City—Temple—Masonic Building Assn., c/o L. Swan, 400 North Bway., temple, 6th St. and Robinson Ave., to Holmboe Co., 424 West 2nd St., $750,000.

Federal Government Work

PROPOSED WORK

Wis., Madison—Post Office, etc.—W. P. Devine, custodian, U. S. Post Office Bldg., plans 4 story, 60 x 210 ft. post office and federal building, rein.-con., brick and stone, Mifflin St. $500,000. Architect not selected.

BIDS DESIRED

N. J., Camden—Dredging—Jan. 19, U. S. Engineer, 815 Witherspoon Bldg., Phila., dredging in Delaware River, here; adv. this issue.

Pa., Phila.—Piping, etc.—Jan. 12, Treas. Dept., Wash., D. C., hot water piping, etc., in U. S. Mint, here; adv. this issue.

Fla., Jacksonville—Dredging, etc.—Jan. 12, U. S. Engineer, dredging and rock removal in Sarasota Bay; adv. this issue.

Ala., Mobile—Catamarans—Jan. 20, U. S. Engineer, dredge pontoon catamarans with discharge pipe for U. S. 20 in. hydraulic dredge Wahalak; adv. this issue.

Ill., Chicago—Extension to Power House—Jan. 3, Treas. Dept., Wash., D. C., extension to power house at U. S. Pub. Health Serv. Hospital. Broadview, here. J. A. Wetmore, acting superv. archt.

Wash., Puget Sound—Pier—Spec. 4556—Jan. 18, Bureau Yards & Docks, Navy Dept., Wash., D. C., rebuilding and extending Pier 5, Navy Yard, here. Noted Dec. 1.

BIDS RECEIVED

Va., Yorktown—Water Supply System—Spec. 4514—Bureau Yards & Docks, Navy Dept., Wash., D. C., water supply system at Naval Fuel Depot, here, (1) work complete, from S. R. Curtis, Lee Hall, (1) $18,442 (170 days), (2) $0.75, (3) $20, (4) $250; Newport Contg. and Eng. Co., Law Bldg., Newport News, (1) $18,473 (240 days), (2) add $0.70, (3) add $18.50, (4) add $150; R. J. Mansfield, 135 William St., New York, (1) $19,971 (240 days), (2) add $2, (3) add $18, (4) add $600. Noted Dec. 8.

S. C., Columbia—Alterations—Treas. Dept., Wash., D. C., alternations to U S. Post Office and Court House, here, from E. Henry, Tipton, Ind., $4,190; W. P. Tennent, Florence, $5,962; Devault & Dietrich, Canton, O., $6,490. Noted Nov. 24.

Ga., Savannah—Quarters—Spec. 4517—Bureau Yards & Docks, Navy Dept., Wash., D. C., quarters at radio station, here, (1) work complete, from Universal Constr. Co., Ft. Wayne, Ind., (1) $2,845, (2) deduct $61; Carson Constr. Co., 116 Bull St., (1) $3,500 (90 days), (2) $3,490 (90 days); R. J. Whalley, 221 West 38th St., (1) $3,944 (90 days). Noted Dec. 1.

Ind., Marion—Hospital—Natl. Home for Disabled Volunteer Soldiers, Dayton, O., 1 story, 95 x 315 ft., brick, steel and concrete tuberculosis hospital, at Soldiers Home, here, from H. R. Blagg Co., 1229 East 3rd St., Dayton, O., $129,890; Davis-Hunt Constr. Co., 907 Schwind Bldg., Dayton, O., $134,908; Yeager & Son, Danville, Ill., $136,963. Noted Dec. 1.

CONTRACTS AWARDED

N. Y., New York—Hospital—Treas. Dept., Wash., D. C., will convert newly acquired Roman Catholic orphan asylum, here, into U. S. Pub. Health Service Hospital. $600,000. Work will be done by day labor.

Miscellaneous

PROPOSED WORK

Track Elevation—Trenton, N. J.—Pennsylvania R.R., Broad St., Phila., plans track elevation at Hermitage Ave., and remove bed of canal 80 ft. at that point. $150,000. A. C. Shand, Broad St., Phila., ch. engr.

CONSTRUCTION NEWS

PROPOSALS

For proposals Advertised see the pages immediately following the "Construction News" Section.

WATERWORKS

Bids Close		See Eng. News-Record
Jan. 3	Earlville, Ill.	Dec. 29
Jan. 3	St. Paul, Minn.	Dec. 29
Jan. 6	Phila., Pa.	Dec. 29
Jan. 11	Central Islip, N. Y.	Dec. 29
	Adv. Dec. 22 and 29.	
Jan. 23	Madison, S. D.	Dec. 29
Jan. 31	Atlanta, Ga.	Dec. 29
	Adv. Dec. 29.	

SEWERS

Jan. 2	Marceline, Mo.	Dec. 15
Jan. 3	Indianapolis, Ind.	Dec. 22
Jan. 3	Detroit, Mich.	Dec. 29
Jan. 4	Columbus, O.	Dec. 29
Jan. 4	Appleton, Wis.	Dec. 15
Jan. 4	Dearborn, Mich.	Dec. 22
	Adv. Dec. 22 and 29.	
Jan. 7	Streator, Ill.	Dec. 22
Jan. 13	Milwaukee, Wis.	Dec. 8
	Adv. Dec. 8 to 29.	
Jan. 23	Madison, S. D.	Dec. 29

WASTE DISPOSAL

Jan. 4	New Orleans, La.	Dec. 22

BRIDGES

Jan. 5	Sedgwick, Kan.	Dec. 29
Jan. 10	Lake Charles, La.	Dec. 15
	Adv. Dec. 15 to 29.	
Jan. 10	Oklahoma	Dec. 29
Jan. 14	Bradentown, Fla.	Dec. 29
Jan. 16	Royersford, Pa.	Dec. 29
	Adv. Dec. 29.	

RAILWAYS

Jan. 9	Ontario	Dec. 15

EXCAVATION AND DREDGING

Jan. 4	Belzoni, Miss.	Dec. 15
	Adv. Dec. 15 to 29.	
Jan. 4	Carrollton, Mo.	Dec. 29
Jan. 6	Ivanhoe, Minn.	Dec. 29
Jan. 7	Riverton, Wyo.	Nov. 10
Jan. 7	Duluth, Minn.	Oct. 13

STREETS AND ROADS

Jan. 2	Petersburg, Ind.	Dec. 22
Jan. 3	Gaston, N. C.	Dec. 29
	Adv. Dec. 29.	
Jan. 3	Stockton, Cal.	Dec. 15
Jan. 3	Lewisburg, W. Va.	Dec. 22
Jan. 3	Akron, O.	Dec. 22
Jan. 3	San Luis Obispo, Cal.	Dec. 22
Jan. 3	Jacksonville, Fla.	Dec. 22
Jan. 4	Florida	Dec. 15
Jan. 5	Florida	Dec. 15
Jan. 5	Jackson, Mich.	Dec. 29
Jan. 5	Virginia	Dec. 29
Jan. 6	Gladwin, Mich.	Dec. 29
Jan. 6	Marlin, Tex.	Dec. 29
Jan. 6	Denton, Tex.	Dec. 29
Jan. 9	Dallas, Tex.	Dec. 29
Jan. 9	Benton, Ill.	Dec. 29
Jan. 9	Elmhurst, Ill.	Dec. 29
	Adv. Dec. 29.	
Jan. 10	Palatka, Fla.	Dec. 22
Jan. 10	Akron, O.	Dec. 29
Jan. 10	Bridgeton, N. J.	Dec. 29
Jan. 10	Oklahoma	Dec. 29
Jan. 10	Jasper, Tex.	Dec. 29
Jan. 10	Georgetown, Tex.	Dec. 29
Jan. 12	Wisconsin	Dec. 29
Jan. 14	Bradentown, Fla.	Dec. 29
Jan. 16	California	Dec. 29
Jan. 31	Lake Wales, Fla.	Dec. 22
	Adv. Dec. 22 and 29.	

INDUSTRIAL WORKS

Jan. 2	Pleasantville, N. J.	Dec. 22
Jan. 3	Phila., Pa.	Dec. 22
Jan. 5	St. Louis, Mo.	Dec. 29
Jan. 7	Racine, Wis.	Dec. 29
Jan. 11	Middletown, N. Y.	Dec. 22
	Adv. Dec. 22 and 29.	
Jan. 15	Corning, Ia.	Dec. 15
Jan. 19	Fargo, N. D.	Dec. 22

BUILDINGS

Bids Close		See Eng. News-Record
Jan. 2	New Orleans, La.	Dec. 29
Jan. 3	Butler, Ind.	Dec. 22
Jan. 4	Cleveland, O.	Dec. 29
Jan. 4	Los Angeles, Cal.	Dec. 29
Jan. 4	Frankfort, Ky.	Dec. 29
Jan. 4	Ottawa, Ont.	Dec. 29
Jan. 5	Gettysburg, Pa.	Dec. 29
Jan. 5	New York, N. Y.	Dec. 29
Jan. 5	Cookeville, Tenn.	Dec. 22
Jan. 5	Murfreesboro, Tenn.	Dec. 29
Jan. 5	New York, N. Y.	Dec. 29
Jan. 5	Nashville, Tenn.	Dec. 29
Jan. 6	Columbus, O.	Dec. 29
Jan. 6	Harrisburg, Pa.	Dec. 22
Jan. 8	Indianapolis, Ind.	Dec. 29
Jan. 10	Fayetteville, N. C.	Dec. 29
Jan. 10	Independence, Kan.	Dec. 29
Jan. 10	Marathon, Wis.	Dec. 22
Jan. 10	Manitowoc, Wis.	Dec. 22
Jan. 12	Secaucus, N. J.	Dec. 29
Jan. 17	Newcastle, Ind.	Dec. 22
Jan. 17	Institute (Sturgeon Bay P. O.), Wis.	Dec. 22
Jan. 18	Grand Rapids, Mich.	Dec. 22
Jan. 24	Grand Rapids, Mich.	Dec. 22
Jan. 24	Madison, Wis.	Dec. 22
Jan. 30	Grand Rapids, Mich.	Dec. 22
Feb. 1	Williamsport, Pa.	Sept. 8
Feb. 1	Duluth, Minn.	Oct. 27
Feb. 2	Battle Ground, Ind.	Dec. 29

MISCELLANEOUS

Jan. 3	Electroliers—Redwood City, Cal.	Dec. 15
Jan. 3	Road Machinery—Lancaster, Wis.	Dec. 29
Jan. 3	Street Signs — Minneapolis, Minn.	Dec. 29
Jan. 4	Turbo-Generator — Lincoln, Neb.	Dec. 15
Jan. 4	Railway Material—San Francisco, Cal.	Dec. 15
Jan. 4	Wharf Cranes—Rochester, N. Y.	Dec. 8
	Adv. Dec. 8 to 29.	
Jan. 6	Station Finish — New York, N. Y.	Dec. 22
Jan. 11	Electrical Work—Buffalo, N. Y.	Dec. 22
Jan. 11	Asphalt Heating Plant—Santa Rosa, Cal.	Dec. 29
Jan. 11	Refrigeration System—Rochester, N. Y.	Dec. 22
Jan. 12	Distribution System—Watertown, S. D.	Dec. 15
Jan. 12	Terminal Sub-structure — San Francisco, Cal.	Dec. 29
Jan. 18	Station Finish — New York, N. Y.	Dec. 29
Feb. 7	Shafts and Tunnel—Jersey City, N. J.	Dec. 29

Where name of official is not given inquiries should be addressed to City Clerk, County Clerk or corresponding official.

Waterworks

PROPOSED WORK

O., Wellsville—Plans improving waterworks. $300,000. Morris-Knowles, Inc., 1200 Jones Law Bldg., Pittsburgh, engrs.

Wis., Beaver Dam—Soon takes bids, centrifugal pump with motor, in pumping station. W. A. Gergen, clk.

Ia., Moulton—Making plans waterworks. $46,000. Henningson Eng. Co., Natl. Bldg., Omaha, Neb., engrs.

S. D., Vermilion—Making plans reservoir and iron pipe line connecting present pumping plant. $30,000. J. M. Brown, Vermilion, engr.

Que., Montreal—A. E. Doucet, City Hall, dir. Pub. Wks., soon takes bids, 11,000 ft. pipe in Cremazie Blvd., $80,000; 5,000 ft. 24 in pipe in Ville Emard Ave., $90,000; 30 in. pipe in various streets, $266,000.

Ont., Sarnia—Election Jan. 2, to vote on $15,000 bonds for extending mains. Prices wanted on 6 and 8 in. c.i. mains. M. D. Stewart, clk.

BIDS DESIRED

Pa., Phila.—Jan. 6, by F. H. Caven, dir. pub. wks., furnishing and general construction of foundations for pumping station at Belmont pumping station, 8,000 lb. steel, 200 cu.yd. concrete, 500 cu.yd. excav., $25,000, high pressure steam and water pipes, exhaust lines, covering for pipe, valves, 10 in. oil separator, 3 separators, etc. $18,000; laying cable at Roxboro and Belmont pump stations, $30,000. C. E. Davis, City Hall, engr.

Ga., Atlanta — Jan. 31, by Purchasing Agent, City Hall, filter plant and reservoir. P. H. Norcross, 1405 Candler Bldg., consult. engr.; adv. this issue.

Ind., Marion—Alvord & Burdick, engrs., 8 South Dearborn St., Chicago, receiving bids altering pumping station, new 5,000,000 gal. steam pump, for city. $50,000. Noted Dec. 1.

Ill., Earlville—Jan. 3, by F. H. Smith, city clk., for double acting deep well pump driven by oil or gasoline engine. $65,000. Engineer not announced.

Minn., St. Paul—Jan. 3, by H. W. Austin, city purch. agt., 39 tons c.i. water specials, 300 coils ⅝ in., 200 coils ¾ in., 50 coils 1 in., 50 coils 1¼ in. lead pipe, 1,500 lb. lead wool, 55 tons pig lead in 100 lb. pigs. O. Claussen, city engr.

S. D., Madison—Jan. 23, waterworks extensions, incl. 8,655 ft. 4-10 in. mains, 5,000 c.i. fittings, etc. $25,000. C. A. Trimmer, city engr.

BIDS RECEIVED

Mich., Monroe—For rein.-con. filtered water reservoir, from Kitchell Constr. Co., Monroe, $41,573; Duboise Constr. Co., Flint, $46,395; Realty Constr. Co., Monroe, $49,013.

Cal., Fullerton—For 240 x 320 ft. reservoir, from P. H. Ehlers, 1959 North Raymond Ave., Pasadena, $49,350; Mercereau Bridge Co., 313 North Ave. 22, Los Angeles, $49,390; Bent Bros., 1714 Eagle St., Los Angeles, $51,000. Noted Dec. 8.

CONTRACTS AWARDED

Mich., Flushing—Will extend water mains and install new pumping equipment, by day labor. $60,000. United Eng. Corp., 522 Griswold St., Detroit, engrs.

Neb., Lincoln—Furnishing one 1,000 hp. economizer, to Green Fuel Economy Co., 90 West St., New York, $16,662; 2 chain grate stokers for 500 hp. boilers, to Kent Eng. Co., Omaha, $6,917; 1 superheater for two 500 hp. boilers, to Power Specialty Co., 111 Bway., New York, $3,450; 2 soot blowers, to Diamond Power Specialty Co., Kansas City, $922; 1 centrifugal driven boiler feed pump, to C. H. Carr Mchy. Co., 411 Mutual Bldg., Kansas City, Mo., $1,286; 1 open feed water heater, to Kent Eng. Co., Omaha, $5,318; 1 hot process water softener, to International Filter Co., 38 South Dearborn St., Chicago, $3,230. Noted Dec. 1.

Wash., Yakima—For pipe line system, to Burnett & Deming, Bellingham, $181,877. Noted Dec. 1.

Cal., Redding—Pacific Gas & Electric Co., will improve reservoir, install filtration plant, re-route and install new mains, by day labor. Cost between $40,000 and $60,000. R. A. Monroe, engr.

Sewers

PROPOSED WORK

Conn., Stratford—Town plans to issue $250,000 bonds to extend sewerage system. R. K. Hunter, mgr.

Pa., McKees Rocks—See "Streets and Roads."

N. C., Hamlet—See "Streets and Roads."

O., Warren—Comrs. Trumbull Co. open bids, after Jan. 1, 4 mi. 8 in. rein.-con., 1 mi. 10-12 in. vitr. clay, ½ mi. 15 in. segmental block and ¾ mi. 10-24 in. tile sewers, Brookfield Twp. $150,000.

Mich., Northville—Plans being prepared for sewerage system incl. 50,000 ft. 8-15 in. vitr. pipe, 1,500 ft. 8-15 in. c.i. pipe, sewage treatment works, settling tank, etc. $110,00. C. W. Hubbell, 2348 Penobscot Bldg., Detroit, engr.

Mich., River Rouge—Plans being prepared 2 mi. main outlet sewer, 4-6 ft. diam., depth of cut 10 ft. $100,000. G. Jerome, 1331 Majestic Bldg., Detroit, engr.

Mich., Springwells—A. Roth, village engr. and C. W. Hubbell, consult. engr.,

Sewers (Continued)

2348 Penobscot Bldg., Detroit, opens bids about Jan. 31, concrete or brick sanitary sewers in Dix, Mulkey and Southern Aves. 5 ft. 5½ and 6 ft. in diam.

Ia., Decorah—Making plans sanitary sewerage system, incl. flushtanks, manholes and lampholes. $30,000. F. M. Hughes, clk.

Minn., Virginia—Making plans extending sewerage system, $24,661; enlarging sludge beds at purification plant, $7,500. E. F. Johnson, city engr.

Wis., Fox Lake—Plans 2 mi. sewerage system. $60,000. W. F. O'Connel, clk. Engineer not selected.

Wis., Milwaukee—Metropolitan Sewerage Comn., 221 Grand Ave., making surveys intercepting sewers to drain Milwaukee Co., 8,000 ft. 36 and 48 in. concrete pipe in Watertown Plank Rd. from 40th St. here, to City of Wauwatosa; 10,000 ft. 30 in. concrete pipe in National Ave. from Milwaukee city limits to West Allis; 400 ft. 20 in. c.i. pipe, under Milwaukee River from Lake St. on west side to east side; 4,000 ft. 30 in. concrete pipe, from east end of above syphon along Milwaukee River north to village of Whitefish Bay; 18-36 in. concrete pipe from foot of Lake St. at Milwaukee River north to North Milwaukee. $3,000,000. T. C. Hatton, City Hall, engr. Noted Nov. 10.

Wis., Milwaukee—Sewerage Comn. making plans and takes bids in spring 5,500 ft. 36 in. concrete intercepting sewer in National Ave. from 18th Ave. to city limits and 1,800 ft. of 48 in. in Becker St. from 6th Ave. to 1st Ave. $1,300,000; bids during winter for 264 sluice gates and 6 in. mud valves, also large number of gate valves in connection with sewage disposal plant on Jones Island. T. C. Hatton, City Hall, engr.

Nev., Gardnerville—Making plans sewerage system, 13,000 ft. 6-12 in. vitr. pipe, manholes, flushtanks and concrete septic tank. $30,000. L. H. Taylor & Co., 309 I. O. O. F. Bldg., Reno, engrs.

Que., Montreal—Takes bids soon for sewers in Sherbrooke St. E. from Maisoneuve to St. Jean Aves., $235,000, and from St. Jean de Dieu Ave. to Pointe Aux Trembles, $398,000. A. E. Doucet, dir. pub. wks.

Ont., London—Takes bids about Jan. 24, 6-27 in. sewer pipe for sanitary sewerage system. $300,000. H. A. Brazier, city engr.

BIDS DESIRED

S. C., Hartsville—See "Streets and Roads."

O. Columbus—Jan. 4, by R. W. Smith, clk. Franklin Co., 3 mi. 15-36 in. joint intercepting sewer in Clinton Dist. 2. $130,000. E. G. Bradbury, Gugle Bldg., engr. Noted Aug. 25.

Mich., Detroit—Jan. 3, by Dept. Purchase & Supplies, 710 Marquette Bldg., sewer pumping apparatus, incl. suction pump on standard chassis, gasoline driven. $5,000.

S. D., Madison—Jan. 23, sewer improvements, incl. 13,725 ft. 6-12 in. vitr. pipe, 216 ft. 12 in. c.i. pipe, 38 manholes, etc. $40,000. C. A. Trimmer, city engr.

BIDS RECEIVED

N. Y., Brooklyn—E. Riegelmann, boro pres., Boro Hall, opened bids Dec. 21 in (1) 83rd St., (2) Maple St., (3) Ave. S., (4) Ave. U, (5) Riverdale Ave., from Tomasetti & Co., 1133 60th St., (1) 77% of engineers estimate ($7,000), (2) 91% ($5,500), (5) 105% ($500); F. Frey, 818 Ocean Parkway, (1) 82.96%; Murphy Bros., 8856 26th Ave., (1) 84%, (2) 87½%; J. V. Timoney Co., 220 East 201st St., New York; (2) 91%, (5) 140%; G. L. Schrade, 193 Beach 108th St., Rockaway Beach, (2) 94%, (3) 81.81% ($2,000) (4) 82.37% ($2,000), (5) 124%; J. J. Guinan Contg. Co., 2314 Gravesend Ave., (3) 85%, (4) 85%; A. M. Hazell, Inc., 26 Cortlandt St., New York, (3) 92%; D. G. McDonald, (4) 81%. Noted Dec. 21.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., opened bids Dec. 20, sewer in (1) Grand St., (2) Wierfield, (3) Jefferson Ave., (4) Cooper Ave., (5) Metropolitan Ave., (6) 163rd St., (7) Haydock (20th) St., (8) Sanford Ave., (9) 96th Ave. (Windom St.), temporary dry weather flow sewer in (10) Junction Ave., reconstructing outlet at (11) Far Rockaway Disposal Plant, from J. Gallow, (1) $3,575, (5) $8,466, (6) $1,880, (10) $11,541; Peace Bros., Inc., 20 Main St., Flushing, (3) $4,686, (4) $4,864, (5) $10,916, (6) $1,816, (7) $1,677, (8) $2,788, (9) $1,752, (10) $11,761; J. F. Clancy, Inc., Long Island City, (1) $4,520, (3) $5,003, (8) $3,332, (9) $1,639; H. J. Mullin Contg. Co., Fulton St. and Twombly Pl., Jamaica, (2) $3,852, (3) $4,498, (5) $9,046, (7) $2,359, (8) $3,077, (9) $1,482, (10) $10,351, (11) $4,564; Kennedy & Smith, Inc., 93 Amity St., Flushing, (1) $3,737, (2) $3,693, (6) $1,646, (7) $2,422; J. V. Timoney Co., 200 East 201st St., New York, (2) $3,664; F. L. Paino, Woodhaven, (4) $5,841; A. Rivera, (11) $4,450; Tidus & Wright, (11) $4,508. Noted Dec. 15.

N. J., Passaic—Passaic Valley Sewerage Comrs., 128 Market St., Newark, opened bids Dec. 20, central portion of Sect. 19, Sta. 24 plus 42 to Sta. 41 plus 00, Garfield-Wallington-Passaic Branch Intercepting Sewer, here, (1) 1,100 lin.ft. earth excav. and refill, in trench, for 42 in. concrete sewer, (2) 558 lin.ft. earth excav. and refill, in trench, for 48 in. concrete sewer, (3) 1,000 cu.yd. concrete masonry, etc., from V. Spiniello, Orange, (1) $28.60 per lin.ft., (2) $21.80, (3) $15, total, $65,654; Cenedella & Co., Milford, Mass., (1) $29, (2) $29, (3) $15), $70,032; Arnolt-More, Inc., 45 Clinton St., Newark, (1) $29, (2) $40, (3) $14, $75,520. Noted Nov. 24.

CONTRACTS AWARDED

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., sewer in Waldron St., etc., to F. Gallo, 940 Crescent St., Astoria, $65,879. Noted Nov. 17.

N. C., Charlotte — Extending sewerage system, to Tucker & Laxton, Realty Bldg., $36,836; storm sewers, to Myers Constr. Co., Meridian, Miss., $54,132. Noted Nov. 3.

Minn., Minneapolis—Will extend trunk sewer in 38th Ave., N.E., to Central Ave., $60,000; in 42nd Ave., N., from Thomas to Washburn Aves., and in Washburn Ave. from 42nd to 35th Aves., $60,000; trunk sewer in Linden Hills Dist. $75,000; relief sewer in 21st Ave., N., from 6th to Colfax Ave., continuation of Minnehaha sewer, $100,000. W. C. Elsberg, city engr., C. Ilstrup, sewer engr. Work will be done by day labor.

Mo., Columbia—To C. J. McCoy Constr. Co., Emporia, Kan., for sewage disposal plant, here, incl. Imhoff tank and dosing chamber, complete, $14,500, sprinkling filter complete, $47,600, sludge filter complete, $2,000, secondary settling tank, $2,000, concrete bulkhead, $500, 5,100 cu.yd. earth excav., $1 per cu.yd., 2,166 cu.yd. rock excav., $4.50, total, $82,352; sewer mains, 1,800 lin.ft. d.s. vitr. pipe, $1.05 per lin.ft., 20,550 lin.ft. 8 in. pipue, $0.50, and 350 lin.ft. 10 in. pipe, $0.65, etc., total, $39,905. Noted Nov. 24.

Wash., Seattle—Bd. Pub. Wks. clay trunk sewer and laterals in 53rd Ave. S. W., to Scalzo & Co., 1708 22nd St., S., $95,612. Noted Nov. 17.

Bridges

PROPOSED WORK

Fla., Clearwater—State Rd. Dept., Tallahassee, takes bids about Jan. 15, Safety Harbor Bridge, 1,200 ft., 2,000 cu.yd. rein.-con., and Seminole Bridge, 1,800 ft., 2,500 cu.yd. rein.-con., Pinellas Co., $60,000 and $90,000 respectively. C. E. Burleson, co. engr., J. A. Mortland, state highway engr. Noted Dec. 1.

O., Girard—Comrs. Trumbull Co. (Warren), open bids in spring 2,000 ft. rein.-con. bridge, Liberty St., $900,000. Watson Eng. Co., 4614 Prospect St., Cleveland, engrs. Noted March 3.

Nebraska — Dept. Pub. Wks., Lincoln, takes bids late in winter, bridge over Platte River, at Brady, to have seven 50 ft. concrete arches; over Platte River, at Lisco, twelve 50 ft. concrete arches; over Platte River, at Silver Creek, twenty 50 ft. concrete arches; over Elkhorn River, at Ewing, three 70 ft. pony Pratt trusses; over Platte River, at Oshkosh, twelve 50 ft. concrete arches. G. E. Johnson, State Dept. Pub. Wks., engr.

Ill., Rockford—Winnebago Co. making plans Trask Bridge, rein.-con. and steel, 18 ft. roadway, two 5 ft. sidewalks. $50,000. A. R. Carter, Court House, engr.

Utah—Ogden—State Rd. Comn., Salt Lake City, opens bids early in 1922, rein.-con. viaduct and two 132 ft. steel bridges, 20 ft. roadways, for Union Pacific R.R., State and Federal Government. $200,000. H. C. Means, state road engr.

BIDS DESIRED

Fla., Bradentown—Jan. 14, by Comrs. Manatee Co., 40 concrete bridges, six 50 ft. spans, 79 gal. iron culverts, 4 wooden tressles, length 10,000 ft., in Manatee Oneco Dist. $100,000. McElroy Eng. Co., Giddens Bldg., Tampa, engrs. Former bids rejected. Noted Dec. 1.

Oklahoma—Jan. 10, by E. S. Alderman, state highway engr., Oklahoma City, one 28 ft. concrete girder bridge, one 210 ft. truss and two 50 ft. trusses, with concrete substructures, McCurtain Co.

Pa., Royersford—Jan. 16, by H. W. Smedley, controller Montgomery Co. Court House, Norristown, 3 span rein.-con. bridge over Schuylkill River between here and Spring City; adv. this issue.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, following bridges, (1) 1 concrete and substructure for steel, Route 13, Sect. 9-B, Saline Co (2) superstructure for steel span, Route 13, Sect. 9-C, Saline Co. (3) 1 concrete and 1 steel, Route 13, Combination E, Saline Co (4) 1 concrete and 1 substructure for steel, Route 13, Sect. 10-B, Gallatin Co. (5) superstructure for steel, Route 13, Sect. 10-C, Gallatin Co. (6) 1 concrete and 1 steel, Route 13, Combination F, Gallatin Co. (7) 3 concrete, Route 13, Sect. 11-B, Gallatin Co., (8) 5 concrete and 2 substructures for steel, Route 13, Combination G, Saline-Gallatin Co. (9) 5 concrete and 2 steel, Route 13, Combination I, Saline Gallatin Co. (10) 2 concrete, State Aid 6, Sect F, Rock Island Co., from Thornton & Linden, Arcola, (1) $18,086 (7) $6,956 (10) $4,322. D. Jenkins, Terre Haute, Ind., (1) $18,106, (4) $8,778, (7) $9,041, (8) $35,484. Zimmerly Bridge Co., Paris, (1) $19,994, (4) $9,998, (8) $40,000, (10) $5,435. Standard Eng. Co., Toledo, O., (2) $8,764, (5) $17,941. Rochester Bridge Co., Rochester, Ind., (2) $8,977. Clinton Bridge Wks., 101 South 2nd St., Clinton, Ia., (2) $9,057, (5) $19,964. B. F. Clarke & Sons, St. Louis, Mo., (3) $32,031, (6) $32,379. Decatur Bridge Wks., East Eldorado St. & Chicago, Illinois & Western Rd., Decatur, (5) $19,935. W. H. Shons, 109 Spring St., Freeport, (4) $11,037, (7) $510,503, M. & P. Contg. Co., Rockport, Ind., (8) $46,000, L. Weldon Co., Davenport, Ia., (9) $84,499, (10) $5,556. Noted Dec. 8.

Kan., Sedgwick—Jan. 5, by Sedgwick Co., 250 ft. rein.-con. T. girder, 5 spans, alternate two 125 ft. rainbow arch spans, for Sedgwick and Harvey Counties. $50,000. M. Roseberry, Wichita, engr. Noted Sept. 1.

BIDS RECEIVED

Tex., Del Rio—Val Verde Co. opened bids Dec. 6, 450 ft. bridge over Pecos River, (a) three 150 x 18 ft. steel spans, concrete abutments on rein.-con. piers (b) three 150 ft. steel spans, mass piers, (c) two 225 ft. steel spans on rein.-con. piers, (d) two 225 ft. steel spans on mass piers, from McCall-Moore Eng. Co., 308 Amicable Bldg., Waco, (a) $64,705, (b) $68,458, (c) $61,098, (d) $64,376; Illinois Steel Bridge Co., c/o H. K. Webb, Box 351, Dallas, (a) $72,450, (b) $84,623, (c) $69,367, (d) $73,861; J. De Puy, Bedell Bldg., San Antonio, (a) $81,632, (b) $88,898; General Constr. Co., 308 Cotton Exch. Bldg., Ft. Worth, (c) $75,892, (d) $77,615. Noted Nov. 24.

CONTRACTS AWARDED

N. Y., Buffalo—Pub. Wks. Comn., Municipal Bldg., reconstructing, renewing and protecting viaducts on Louisiana and Perry Sts., to Lackawanna Bridge Co., Bell and Abbey Sts., $76,651 and $84,615 respectively. Noted Nov. 24.

N. Y., North Tonawanda — See "Miscellaneous."

Wisconsin—State Hy. Comn., Madison, Melrose Bridge, Jackson Co., to Worden Allen Co., Port Washington Rd., Milwaukee, additional concrete in substructure no greater depth $30, additional concrete in substructure greater depth $40, less concrete substructure $12, total $44,987. Noted Dec. 1.

Kan., Topeka—Shawnee Co., to F. Luttjohann, 2101 Kansas St., Mill Dam Bridge, $19,440, Grove Bridge, $17,747, Duncan Bridge, $12,347; to Rohr & Wayland, Leavenworth, Lawton Bridge, $5,983, County Line Bridge, $7,794; to Voback & Roark, McFarlan, Nedeau Bridge, $6,091; to St. Joseph Structural Steel Co., 9th and Atchinson Sts., St. Joseph, Mo., Seward Bridge, $17,290. Noted Dec. 8.

Minn., New Ulm—State Hy. Comn., St. Paul, Bridge 3660, and Bridge 3661, over Minnesota River near here, for Brown and Nicollett Counties, City of New Ulm and State, to Illinois Steel Co., 836 Security Bldg., Minneapolis, $48,792. Noted Dec. 8.

Tex., Dallas—See "Streets and Roads."

Railways

BIDS DESIRED

California—E. Cox, vice-pres. Sugar Pine Lumber Co., 801 1st Natl. Bank Bldg., San Francisco, and pres. of Minerets & Western R.R., taking bids for all work in connection with grading 35.5 mi. standard guage railway from Fresno into timber lands, incl. grading, filling, excavating, etc., trestle construction, masonry and concrete work, 4-42 in. culvert pipe; this work is for Minerets & Western R.R., Madera, a common carrier. Balance of railway, 19.5 mi., making total of 55 mi., will be constructed for Sugar Pine Lumber Co., from end of above mentioned road into timber property. $2,500,000. T. L. Russell, Madera, ch. engr. for Minerets & Western R.R. Noted Dec. 22.

CONTRACTS AWARDED

North Carolina—Carolina & North Western R.R., Lincolnton, 3½ mi. grading from Mt. Holly to Mountain Island, to Bolton Constr. Co., Marion, $75,000.

Excavation and Dredging

PROPOSED WORK

Freight Terminals—Denison, Tex.—Missouri, Kansas & Texas Ry., Railway Bldg., St. Louis, Mo., making plans freight terminals, incl. switching yards, roundhouse, shop, storeroom, warehouse, transfer buildings, fuel oil storage tank and other buildings. F. Ringer, ch. engr. A. L. Sparks, c/o owner, archt. $3,000,000.

Ia., Toledo—Tama Co. making plans to straighten Iowa River, to drain 35,840 acres. $537,000. F. B. Ingersoll, Marshalltown, engr.

Ont., London—London Twp. plans 6, 8 and 10 in. tile drains. $25,000. F. W. Farncombe, Dominion Savings Bldg., engr.

BIDS DESIRED

Minn., Ivanhoe—Jan. 6, by Lincoln Co., Ditch 53, 62,707 cu.yd. excav. and 32,025 ft. 6-32 in. tile. $45,511. A. L. Swenson, aud.

Mo., Carrollton—Jan. 4, by Norborne D. D., 100 mi. ditch and levee work, 2,494,100 cu.yd. excav. $400,000. Elliott & Harman Eng. Co., Peoria, Ill., engrs.

BIDS RECEIVED

Cal., Los Angeles—Dredging and filling Los Angeles Harbor, San Pedro, (a) east basin, (b) west basin, from United Dredging Co., Central Bldg., (a) $0.1224 per cu. yd. complete in 7 months, $0.1184 complete in 12 months, (b) $0.126 complete in 9 months, $0.1184 complete in 12 months; Los Angeles Dredging Co., Los Angeles, (a) $0.1124, (b) $0.1989; San Francisco Bridge Co., Nevada Bank Bldg., San Francisco, (a) $0.1135, (b) $0.1435.

CONTRACTS AWARDED

Minn., Jackson—P. D. McKellar, aud. Jackson Co., drainage work in Jackson and Noble Counties, Judicial Ditch 65 and Judicial Ditch 83, to D. A. Lahart, Windom, $9,000 and $9,440 respectively; Judicial Ditch 76, tile work to P. Thompson, Windom, $106,765; Judicial Ditch 84, tile work to Nielsen & Sorensen, Worthington, $38,216. Noted Dec. 8.

Streets and Roads

PROPOSED WORK

Pa., McKees Rocks—Boro, c/o Clerk, Municipal Bldg., plans street and sewer improvements. $150,000. Engineer not selected.

Va., Portsmouth — Norfolk Co. selling $259,000 bonds improving roads. R. B. Preston, New Kirn Bldg., co. engr.

North Carolina—State Hy. Comn., Raleigh, plans clearing, grading, bridging and surfacing 21.6 mi. road from Cullowhee to Cashiers Valley, State Project 952, Jackson Co., $110,000; clearing, grading and surfacing 13.85 mi. from Andrews to Murphy, State Project 912, Cherokee Co., $60,000, 10.9 mi. from Dillsboro to Macon Co. line, State Project 953, Jackson Co., $50,000; grading and surfacing 6 mi. from Toxaway to Jackson Co. line, State Project 991, Transylvania Co., $30,000; grading, bridging and surfacing 7.3 mi. from Springdale to Transylvania Co. line, State Project 941, Haywood Co., $35,000. C. M. Upham, state highway engr.

N. C., Hamlet — Plans hardsurfacing streets in business section and installing sanitary sewers in East Hamlet. $80,000.

Fla., Fort Pierce—St. Lucie Co. plans paving 25 mi. Okeechobee-Ft. Pierce Rd., probably bituminous macadam on rock; 14 mi. Ft. Pierce-Vero Rd., bituminous macadam or asphalt on rock or cement grouted brick. $396,000. E. H. Collins, co. engr.

Fla., Titusville—Brevard Co. plans paving 6 mi. highway from Indian River City to St. Johns River, probably macadam on 8 mi. rock. $120,000.

Fla., Wauchula—Plans paving 10 mi. 10th Ave., Bay, Orange, Palmetto and Oak Sts. $200,000.

O., Akron—Voted $500,000 for resurfacing and repairing streets in 1922. E. A. Kemmler, 300 Delaware Bldg., engr.

O., Lisbon—Comrs. Columbiana Co. open bids in spring grading and brick paving 2:5 mi. Lincoln Highway, west of here, $110,000; 8.7 mi. Salineville-Wellsville Rd., $120,000; 3 mi. Unity-Youngstown Rd., $70,000; 2.5 mi. Youngstown-Lisbon Rd., Center Twp., $45,000; 7.28 mi. Hanover-Salem Rd., $70,000; 5.3 mi. Salineville-Lisbon Rd., $90,000. F. Kirk, co. engr.

Ill., Benton—Received no bids Dec. 19, grading, paving and building sewers, ½ mi. South Main St. $46,833. Will be readvertised. C. B. Mautz, city engr. Noted Dec. 8.

Ill., Bloomington—Making plans paving various streets, brick and asphalt on concrete. $250,000. E. Packard, City Hall, engr.

Ill., Durand—Bd. Local Impvts. making plans paving various streets, vitr. brick on concrete, $30,000. A. R. Carter, Court House, Rockford, engr.

Ill., Galena—Bd. Local Impvts. making plans paving, vitr. brick on concrete, and building 10 to 14 in. vitr. tile sewers in Bench St. $38,000. W. Hinn, Galena, engr.

Ill., Herrin—Plans paving streets, vitr. brick on concrete. $200,000. A. T. Pace, city council. Engineer not selected.

Ill., Marion—Plans paving various alleys, vitr. brick on concrete. $28,000. P. B. Wilson, City Hall, engr.

Ill., Rockford — Plans paving various streets, vitr, brick or asphalt on concrete. $29,000. B. C. Harvey, City Hall, engr.

Ill., Rockford—Winnebago Co. making plans paving road from Shirland to Harrison, bituminous macadam on concrete. $40,000. A. R. Carter, Court House, engr.

Ia., Tipton—Making plans resurfacing 4 blocks and paving about 75 blocks, 4,800 sq.yd. resurfacing and 55,000 sq.yd. paving. M. Tschirgi & Son, 712 Amer. Trust Bank Bldg., Cedar Rapids, engrs.

Kan., Wichita—Making plans paving, curbing and guttering Harrison Ave. from Litchfield to Porter Aves., 1,000 sq.yd. concrete, $3,000; Central Ave. from Washington to Hydraulic Aves., 7,000-8,000 sq.yd. vitr. brick, $40,000; Central Ave. from Mead to Washington Sts., 3,000 sq.yd. vitr brick, $15,000; ½ block Laura Ave. from Douglas Alley south, 600 sq.yd. asphaltic concrete, $2,500; Wichita St. from Harry to Skinner Sts., 6,000 sq.yd. asphaltic concrete, $25,000; Elk St. from Cleveland to Methewson Aves., 1,000 sq.yd. asphaltic concrete, $3,750; Hydraulic Ave. from 3rd St. to Central Ave., 2,000 sq.yd. asphalt, $8,000; 1st St. from New York Ave. to Spruce St., 6,000 sq.yd. asphaltic concrete, $22,000; Kellogg St. from Patti to Hydraulic Aves., 4,000 sq.yd. concrete, $12,000; 1st St. from Estelle to Volutia Sts., 1,000 sq.yd. asphaltic concrete, $3,750. P. L. Brockway, 155 South Emporia St., city engr.

Kan., Wichita — Sedgwick Co. making plans paving and bridging 12½ mi. North Lawrence Ave., road north to county line, 18 ft., brick or concrete, $40,000 to $50,000 per mi. (first provision may only include 4½ mi. to Kechi Rd. intersection); paving 19 mi. Cannon Ball Rd. west to county line, 18 ft., brick or concrete, incl. 2 mi. spur to Cheney, $34,000 to $44,000 per mi. M. Roseberry, co. engr.

S. D., Sioux Falls—Comrs. Minnehaha Co., making plans grading and gravel surfacing 3.5 mi. Washington Highway, Hartford Twp., and 14 mi. Colton Rd. $35,000. A. G. Risty, chn.

N. D., Wahpeton—Plans paving 10 blocks. $50,000. S. H. Murray, clk.

Mont., Bozeman—Gallatin Co. making plans improving various roads. $200,000. F. Lay, aud.

Missouri—State Hy. Dept., Jefferson City, plans 4.49 mi. road from Maryville, northward, southward and westward, State Aid Project 20.120, Nodaway Co., 56,976 cu.yd. earth excav. and 274 cu.yd. concrete masonry, etc., $37,431; 7.743 mi. road from Van Buren, northeastward, State Aid Project 20.122, Carter Co., 40,678 cu.yd. earth and 9,335 cu.yd. rock excav., 4,222 cu.yd. borrow and 227.2 cu.yd. concrete masonry, etc., $52,416. A. Graham, state highway engr.

Missouri—State Hy. Dept., Jefferson City, soon takes bids 6.693 mi. road near Oregon. State Aid Project 2[illegible]37, Holt Co. $53,870. A. C. Lingley, St. Joseph, div. engr. Noted Dec. 8.

Missouri—State Hy. Dept., Jefferson City, plans 2.244 mi. road from Mt. Sterling eastward. State Aid Project 20.124. Gasconade Co., 19,888 cu.yd. earth and 8,126 cu.yd. rock excav., 138.2 cu.yd. concrete masonry, etc. $40,231. A. Graham, state highway engr.

Mo., Carthage—City, c/o Carthage Special Rd. Dist., plans surfacing 12 mi. road from here to Jasper, concrete. $350,000. S. E. Wheeler, supt. Engineer not selected.

Tex., La Grange—Fayette Co. making plans grading, gravel surfacing and bridging 14.47 mi. State Highway 3-B, from end of present Federal Aid Project 241 to Carmine, 2,000 cu.yd. concrete, $154,000 lb. reinforcing and 61,000 lb. structural steel, 33,952 cu.yd. gravel surfacing, $147,000; 9.32 mi. Highway 3-A, from La Grange to Prairie Valley, 41,600 cu.yd. borrow and 18,235 cu.yd. earth excav., 528 cu.yd. concrete, 34,751 lb. reinforcing, 21,880 cu.yd. gravel surfacing $73,627; 15.5 mi. State Highway 3-A, on the La Grange, Rutersville, Oldenburg Rd., incl. rein.-con. bridge over Cummings Creek, 509.9 cu.yd. concrete, 131,683 lb. reinforcing, 33,995 cu.yd. gravel, $181,882. A. Schlafli, Schulenberg, co. engr.

Idaho, Nampa—Plans grading and surfacing 32 mi. various streets, lava gravel and crushed rock; paving 19 blocks, bitulithic. $293,000.

Nev., Reno—Plans grading, paving and surfacing Belmont Rd., California, Evans and Wheeler Aves., Plumas, Chestnut, Ralston, West 2nd, East 2nd, 10th, 8th, Lake, East 6th, West, West 4th, Vine, Elm, East Mill, and Cheney Sts. 15,005 ft. type A pavement, 1½ in. asphaltic concrete on 3½ in. asphaltic concrete, asphaltic seal coat, and 10,363 ft. type B, 2 in. asphaltic concrete, asphaltic seal coat on old redressed macadam. $243,913. H. Chism, city engr.

Ontario—Dept. Pub. Highways, Toronto, plans 31.575 mi. concrete pavements, Contrs. 600, and 602-611 inclusive; 5 mi. concrete pavement, alternative asphaltic concrete, 7 in. loose stone compacted macadam base or 5 in. concrete base, 1-3-6 mix, Contr. 601; 20.25 mi. asphaltic concrete pavement, Contrs. 612-616 inclusive; 12.65 mi. bituminous penetration, Contrs. 617-620 inclusive; 9 mi. macadam road, Contrs. 621 and 622; 43.8 mi. macadam base course, Contrs. 623-630 inclusive; 44.25 mi. earth and rock work, Contrs. 640-644 and 647-650 inclusive; Cooksville subway, Bloor St. E. subway, Binkleys subway, filling in 2 spans of Belleville Prince Edward Bridge, 1,000 culverts, 300 mi. grading, Contr. 645. H. G. Hogarth, Parliament Bldgs., engr.

BIDS DESIRED

Virginia—Jan. 5, by State Hy. Comn., Richmond, paving 5.36 mi. road between Williamsburg and Lee Hall, in James City, Warwick Co., concrete, or bituminous macadam. $100,000. G. P. Coleman, state hy. comr.

N. C., Gastonia—Jan. 3, by Comrs. Gaston Co., 8 mi. hardsurfaced highway. D. L. Struthers, highway engr.; adv. this issue.

S. C., Hartsville—Jan. 5, paving and laying storm sewers in various streets, 50,000 yd. asphaltic concrete, sheet asphalt, concrete or vitr. brick, 15,000 yd. excav., 40,000 ft. curbing and 17,000 ft. storm sewers. Lee, Pennell & Murray, Sumter, engrs.

Fla., Bradentown—Jan. 14, by Comrs. Manatee Co., grading and paving 55 mi. Manatee-Oneco Rd. Dist., 250,000 cu.yd. grading, 94,000 sq.yd. asphalt and 105,000 sq.yd. shell. $250,000. McElroy Eng. Co., Giddens Bldg., Tampa, engrs. Former bids rejected. Noted Dec. 1.

O., Akron—Jan. 10, by Summit Co. grading and paving 1 mi. Copley Rd., 15,000 sq.yd. asphalt or concrete on concrete, $45,000; 5 mi. Richfield-Hudson Rd., 75,000 sq.yd. bituminous macadam, $165,000. J. Weaver, Court House, engr.

Mich., Gladwin—Jan. 6, by State Highway Dept., at office Bd. Rd. Comrs. Gladwin Co., grading and surfacing 5.516 mi. State Trunk Line Rd. 61-1, 1,615 cu.yd. excav., 51,776 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Mich., Jackson—Jan. 5, by State Highway Dept. at office Bd. Rd. Comrs. Jackson Co., grading and surfacing 4.646 mi. State

Streets and Roads (Continued)

Trunk Line Rd. 14-27, Sect. A, 54,678 cu.yd. excav., 43,613 sq.yd. gravel. F. F. Rodgers, Lansing, state highway comr.

Ill., Benton—Jan. 9, paving and building sewers in ½ mi. North Main St., 5,160 cu.yd. earth excav., 7,736 sq.yd. concrete, 5,300 ft. curbing, 1,190 ft. 10-36 in. pipe. $44,190. C. B. Mautz, city engr.

Ill., Elmhurst—Jan. 9, grading, paving, curbing and building sewers. $115,000. E. Hancock, 2047 Ogden Ave., Chicago, engr.; adv. this issue.

Wisconsin—Jan. 12, by Wisconsin Hy. Comn., Madison, grading and surfacing 2,400 ft. east and west approaches to Sauk City Bridge, Sauk City, 1.4 acres clearing, 3,811 cu.yd. earth, 23,000 cu.yd. borrow excav., 29.9 cu.yd. concrete, 13,000 lb. reinforcing.

Tex., Dallas—Jan. 9, by Comrs. Dallas Co., improving 25.7 mi. Irving Cappell Rd., asphaltic macadam and gravel. $306,000. Nagle, Witt, Rollins Eng. Co., Amer. Exch. Bank Bldg., engrs.

Tex., Denton—Jan. 6 by Comrs. Denton Co., improving 10 mi. Denton-Dallas Highway, 3 in. waterbound crushed stone macadam and 1½ in. bituminous surfacing. $100,000. Bryant & Huffman, Denton, engrs.

Tex., Georgetown—Jan. 10, by F. D. Love, judge Williamson Co., grading and limestone shale surfacing 7.51, State Highway 36-B, 3,504 cu.yd. borrow, 25,564 cu.yd. roadway and 517 cu.yd. rock excav., 454.5 cu.yd. concrete, 35,707 lb. reinforcing, 12,839 cu.yd. limestone shale. $41,475. R. A. Nichols, co. engr. Noted Dec. 8.

Tex., Jasper—Jan. 10, by H. Hargrove, judge Jasper Co., grading and gravel surfacing 11.2 mi. State Highway 8, Federal Aid Project 238, 67,772 cu.yd. excav., 733.6 cu.yd. concrete, 61,567 lb. reinforcing, 23,356 cu.yd. shipped gravel to be furnished by county. $145,344. C. P. Hunter, co. engr.

Tex., Marlin—Jan. 6, by E. M. Dodson, judge Falls Co., surfacing 6.78 mi. Highway 2, through Precinct 1, 67,769 sq.yd. bituminous macadam. $50,000. G. W. Courter, co. engr.

Oklahoma—Jan. 10, by E. S. Alderman, state highway engr., Oklahoma City, surfacing and bridging Federal Aid Project 40, Sect. A, McCurtain Co., 23,375 cu.yd. earth and 31,400 cu.yd. borrow excav., 465 cu.yd. concrete, 29,455 lb. reinforcing, 18,775 cu.yd. gravel or crushed rock; Federal Aid Project 40, Sect. B, McCurtain Co., 25,838 cu.yd. earth and 40,000 cu.yd. borrow excav., 689 cu.yd. concrete, 38,950 lb. reinforcing, 24,275 cu.yd. gravel or crushed rock; Federal Aid Project 40, Sect. C, McCurtain Co., 40,651 cu.yd. earth and 86,381 cu.yd. borrow excav., 2,234 cu.yd. concrete, 107,738 lb. reinforcing, 30,721 cu.yd. gravel or crushed rock; 4.2 mi. Federal Aid Project 43, Sect. B, Rogers Co., gravel; improving 4.07 mi. Federal Aid Project 20, Sects. B-C, F-G, P-Q, Kay Co., vertical fibre brick and concrete.

California—Jan. 16, by State Hy. Dept., Sacramento, paving, 17.6 mi. highway between Whitewater and Edom, and 11.5 mi. between Edom and Indio, Riverside Co., cement concrete or asphaltic concrete. A. B. Fletcher, state highway engr.

BIDS RECEIVED

N. Y., New York — Park Bd. at office Dept. Parks, Municipal Bldg., opened bids Dec. 22, paving portions of drives in Central Park, from Asphalt Constr. Co., 208 Bway., $23,165; C. D. Beckwith, Inc., 301 West 108th St., $23,962; Cleveland Trinidad Paving Co., Flushing, $26,770. Noted Dec. 15.

N. Y., S. I., Stapleton—C. D. Van Name, pres. Richmond Boro, Boro Hall, Staten Island, opened bids Dec. 22, paving roadway in rear of new bulkhead extending from southerly end of Simonson Ave. to Arrietta St., here, from Brooklyn Manhattan Contg. Corp., 26 Court St., Brooklyn, $50,657; J. Johnson Sons, West New Brighton, $61,411; J. Meehan & Son, 74 Cortlandt, St., New York, $63,109. Noted Dec. 15.

O., Warren—E. H. Braunberns, dir. Pub. Serv. opened bids Dec. 20, (a) Sect. 1, (b) Sect. 2, (c) Sect. 3, Red Run Sewer, from F. George, 1657 Mahoning Ave., Youngstown, (a) $142,810, (b) $90,005, (c) $74,440; J. F. Casey Co., Union Ave., Pittsburgh, (a) $139,234, (b) $115,926, (c) $105,643. Noted Dec. 8.

Illinois—Dept. Pub. Wks. and Buildings, Div. Highways, Springfield, paving (1) 5.96 mi. Route 7, Sect. 3, Henry Co., (2) 1.59 mi. Route 10, Sect. 2B, Piatt Co., (3) 2.2 mi. Route 10, Sect. 32, Champaign Co., (4) 3.01 mi. Route 12, Sect. 16, Marion Co., (5) 7.22 mi. Route 15, Sect. 16, Jefferson-Wayne Co., (6) 5.59 mi. Route 15, Sect. 17, Wayne Co., (7) 4.98 mi. Route 15, Sect. 18, Wayne Co., (8) 17.79 mi. Route 15, Combination A, Jefferson-Wayne Co., (9) 6.21 mi. Route 28, Sect. 7, Henry-Bureau Co., (10) 5.68 mi. Route 28, Sect. 8, Bureau Co., (11) 11.89 mi. Route 28, Combination B, Henry-Bureau Co., (12) 5.79 mi. Route 31, Sect. 3, Adams Co., (13) 5.69 mi. Route 31, Sect. 4, Adams Co., (14) 11.48 mi. Route 31, Combination C, Adams Co., (15) 2.09 mi. State Aid 10, Sect. E, Iroquois Co.; grading (16) 7.2 mi. Route 13, Sect. 9-A, Saline Co., (17) 6.32 mi. Route 13, Sect. 10-A, Gallatin Co., (18) 19.94 mi. Route 13, Combination D, Saline-Gallatin Co., (19) 0.3 mi. Federal Aid Project 8, Sect. V-3, Macoupin Co., from J. B. Casey Eng. Co., Chicago, (1) $135,012, (9) $132,800, (10) $128,742. Central Eng. Co., 711 Putnam Bldg., Davenport, Ia., (1) $143,355. L. S. Kuhn, Bloomington, (1) $148,389. Indiana Road Paving Co., Rochester, Ind., (2) $14,424. C. W. Clarke, Clinton, Ind., (2) $16,739, (3) $28,833. W. F. Lodge, Monticello, (2) $18,116. F. A. Summers, Urbana, (3) $22,722. Barnes & Verhey, Effingham, (3) $26,076. Edwardsville Constr. Co., Edwardsville, (4) $64,861. W. C. Johnson, 510 South High St., Belleville, (4) $66,716. J. W. Etchison, Casey, (4) $70,187. Alzina Constr. Co., Springfield, (5) $161,505, (6) $119,855, (7) $110,712, (8) $374,444, (12) $132,546 (13) $118,945, (14) $242,567. W. O'Neil & Sons, Faribault, Minn., (5) $166,030, (8) $362,325. Wabash Constr. Co., Vincennes, Ind., (5) $173,315, (6) $124,113, (7) $111,843. M. Hayes & Sons, Janesville, Wis., (6) $115,297, (7) $106,705. W. F. Smith & Co., Rensselaer, Ind., (8) $380,000. White Constr. Co., St. Louis, Mo., (9) $133,346, (10) $130,333, (11) $251,134, R. F. Conway Co., 133 West Washington St., Chicago, (9) $135,614, (10) $127,001, (11) 247,170. J. J. Dunnegan, Shenandoah, Ia., (11) $234,218. Eiff & Simons, Quincy, (12) $128,977, (13) $128,064, (14) $228,920. General Constr. Co., St. Louis, Mo., (12) $131,080. C. E. Carson & Co., 155 North Clark St., Chicago, (13) $130,939. Bates & Rogers Constr. Co., 37 West Van Buren St., Chicago, (14) $245,578. I H. McMillan & Sons, Kankakee, (15) $25,070. R. P. Devine, Watseka, (15) $26,314. M. H. Lewis, Hoopeston, (15) $29.510. L. Rich Constr. Co., 429 Missouri Ave., East St. Louis, (16) $18,548, (17) $19,323. Schweister Bros., Marion, (16) $21,537, (17) $22,749, (18) $65,162. Cameron & Joyce, Keokuk, Ia., (16) $24,616, (17) $25,197, (18) $59,612. Buis & Olsen, St. Joseph, Mo., (18) $70,904. M. R. Doyo & Co., Peoria, (19) $7,782. A. O. McCoy, Clayton, (19) $7,917. Tritt Bros., Belleville, (19) $8,431. Noted Dec. 8.

Kan., Iola—Allen Co. grading 3.016 mi. Fort Scott-Wichita Highway, 18 ft., from C. C. Baker, Humboldt, $88,793; A. R. Stinson, 1615 Boswell St., Topeka, $89,744.

Kan., Salina—Salina Co. paving 7.015 mi. Sects. C and D, Meridian Train, Federal Aid Project 45, from M. R. Amerman, Wichita, brick, $285,550, concrete, $222,539; Zeigler & Dalton, Junction City, bituminous macadam, $186,673. Noted Nov. 3.

Tex., Wharton—Wharton Co. surfacing (1) 6.4 mi. State Highway 3, from Colorado Co. east, State Aid Project 50, (2) 5.9 mi. Highway 3, from San Bernard River west, Federal Aid Project 15, (a) trap rock and asphaltic oil, or (b) uvalde rock asphalt, from Haden & Austin, 727 Kress Bldg., Houston, (1b) $89,999, (2b) $78,791; Uvalde Rock Asphalt Co., Swearingen Bldg., Antonio, (1b) $100,954, (2b) $90,703; Texas Rd. Co., Southwest Life Bldg., Dallas, Tex., (1a) $28,444, (2b) $25,818. Noted Dec. 8.

Tex., Hondo—Medina Co., (1) grading and gravel surfacing 2.85 mi. Highway 2, Meridian Highway, from Frio Co. line north east, (2) grading, gravel surfacing and bridging 10.57 mi. State Highway 2, Atasco Co. line to 1.9 mi. south of Devine, from Kuykendall & Shelton, Temple, (1) $15,676, (2) $81,153; Thomas & Harlie, Rodgers, (1) $17,593; Scarbrough, Smith & Davis, Cleburne, (1) $17,760, (2) $83,292; Rice & Winder, 1101 West 22nd St., Austin, (2) $83,884. Noted Dec. 8.

Oregon — State Hy. Dept., Portland, opened bids Dec. 15, grading 0.27 mi. Myrtle Creek Sect. Pacific Highway, Douglas Co., from H. J. Hildeburn, Roseburg, $8,422, A. B. Smith, Portland, $9,938, Joplin & Eldon, Portland, $10,108; 10 mi. Myrtle Point Bridge Sect. Coos Bay-Roseburg Highway, Coos Co., from Warren Constr. Co., Gasco Bldg., Portland, $139,1[illegible]; J. Hamphire Co., Grants Pass, $1[illegible],189, Hauser Constr. Co., Multnomah Hotel, Portland, $159,651; grading and crushed gravel surfacing 8.5 mi. Medford Agate Sect. Medford-Crater Lake Highway, Jackson Co., from W. C. Stone, 654 East Alder St., Portland, $62,957, Tobin & Pierce, Portland, $70,945, A. D. Kern, Lbr. Exch. Bldg., Portland, $77,470.

California—State Hy. Comn., Sacramento, surfacing 2.81 mi. highway between [illegible]-mi. northwest of Merced to Gerard Ave., Merced Co., 3,340 ton asphaltic concrete, from Valley Paving & Constr. Co., Goldstein Bldg., Visalia, $18,303, J. A. Costello, Jr., 1083 Shotwell St., San Francisco, $22,211; 0.68 mi. highway between Tracy and ½-mi. east, San Joaquin Co., 900 ton asphaltic concrete, from J. A. Costello, Jr., 1083 Shotwell St., San Francisco, $10,485, Clark & Henery Constr. Co., 38 South Sutter St., Stockton, $11,385. Noted Dec. 1.

California—State Hy. Dept., Sacramento, grading 7.3 mi. highway between Sloat Blvd. and Sneath Rd., San Francisco and San Mateo Counties, from P. L. Burr, 512 Mission St., San Francisco, $148,778; E. B. & A. L. Stone Co., Claus Spreckels Bldg., San Francisco, $159,321; Warren Constr. Co., Journal Bldg., Portland, Ore., $170,503. Noted Dec. 8.

CONTRACTS AWARDED

Rhode Island—State Bd. Pub. Rds., Providence, 1.4 mi. Farnum Pike, Smithfield, 18 ft., bituminous macadam, to L. Carchia, Newton Highlands, Mass., $35,314. Noted Dec. 1.

N. Y., Long Island City—M. E. Connolly, pres. Queens Boro, Queens Subway Bldg., repaving 8th and 1st Aves., to Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $10,800 and $12,640 respectively; curbing and laying sidewalks on Pierce Ave., to F. J. Clancy, 460 Lockwood St., Astoria, $16,590. Noted Dec. 1.

Pennsylvania—State Highway Dept., Harrisburg, paving 1,483 ft. Bradford Co., 3,018 sq.yd. rein.-con., 1,426 cu.yd. excav., to R. J. DeLong, 229 9th Ave., Williamsport, $16,635; 11,497 ft. McKean Co., 23,000 cu.yd. excav., to W. J. and J. F. Gephart, 341 Pine St., Williamsport, $26,627; 2,999 ft. Cumberland Co., 1,045 cu.yd. excav., 6,028 sq.yd. rein.-con., to Burgess & Dorrier, Scottsville, Va., $24,866. Noted Oct. 6 and Dec. 1.

Pa., Pittsburgh—For grading, paving, repaving and curbing Broad St. from North Highland to Hamilton Aves., to Booth & Flinn Ltd., 1942 Forbes St., $37,000; grading, paving and curbing Baker St. from Morningside Ave. to Butler St., to T. Cronin Co., South 18th St., $40,500. Noted Dec. 15.

S. C., Florence—Mars Bluff Bridge Bd., 2 mi. road to Chitwood & Palmer, Florence, 72,000 cu.yd. grading, at $0.24 per cu.yd., 12,200 sq.yd. clay gravel surface, $0.09 plus $0.02 overhaul, 256 cu.yd. rein.con. in abutments, $0.20 plus $0.05 per lb. for reinforcement, 7,272 sq.yd. 7 in. concrete pavement, $2.95, 3,300 sq.yd. 4 in. concrete pavement on shoulders, $1, etc., total $79,000. Noted Dec. 1.

Fla., Hollywood — Hollywood Land & Water Co., Miami, will pave 2 mi. Hollywood Blvd., 92 ft. wide, 3 in. asphalt on 8 in. rock and concrete, incl. 4 mi. concrete curbing and 4 mi. concrete sidewalks, 14 ft. wide. $200,000. Work will be done by day labor.

Mich., Lapeer—State Hy. Dept. at office Bd. Rd. Comrs. Lapeer Co., grading and surfacing 7.515 mi. State Trunk Line Rd. 53-4 Sect. B to J; Decher, Rogers. Work involves 58,809 cu.yd. excav., $0.40, 554.3 cu.yd. concrete, $18, 70,544 sq.yd. gravel, $0.46. Total $70,420. Noted Dec. 1.

Ill., Murphysboro—Paving streets in Dist. 15, bituminous macadam on concrete, to Southern Illinois Quarry & Constr. Co., Murphysboro, $60,000.

Ill., Pekin—Tazewell Co., paving various streets, to McElwell & Rogy, 1937 Lincoln Ave., Peoria, $100,000.

Wis., Madison — Wisconsin Hy. Comn., Madison, grading and concrete surfacing Peshtigo-Marinette Rd., Federal Aid Project 259, Marinette Co., to W. E. Ule, Stevens Point, $110,006 Noted Dec. 22.

Minnesota—State Hy. Comn., St. Paul, gravel surfacing State Project 28-26, Federal Aid Project 240, Big Stone Co. State Projects 7-21 and 60-21, Federal Aid Project 216, Blue Earth Co., State Project 9-22, Federal Aid Project 228, Martin Co.,

Streets and Roads (Continued)

to C. F. Sculley Equipment Co., 300 Dakota Bldg., St. Paul, and Connolly Contg. Co., 427 Rice St., St. Paul, $64,616, $27,669 and $25,459, respectively; State Project 18-21, Federal Aid Project 217, Sherburne Co., to Winston Bros. Co., 801 Globe Bldg., Minneapolis, $16,753; State Project 10-23, Federal Aid Project 210, Meeker Co., to C. Weaver, Anoka, $17,867; State Project 6-26; Federal Aid Project 161-A, Wilkin Co., to Miller Constr. Co., Grain Exch. Bldg., Sioux City, Ia., $16,151; State Project 8-24, Federal Aid Project 237, Itasca Co., Div. A to Northern Road & Constr. Co., 2214 Sheridan Ave., N., Minneapolis, $19,897, Div. B, to Floan-Sundstrom Co., Hibbing, $7,564; State Project 8-25, Federal Aid Project 57, Beltrami Co., to Campbell Equipment Co., 230 Oak Grove St., Minneapolis, $16,840; State Project 10-22, Federal Aid Project 211, Swift, Pope and Stevens Counties, to Dobbleman & Rasmussen, 4232 Colfax Ave., S., Minneapolis, $20,066; State Project 21-22, Federal Aid Project 119-A, Le Sueur Co., to S. J. Peterson, 300 West Lake St., Minneapolis, $14,430. Noted Dec. 8.

Minnesota—State Hy. Comn., St. Paul, State Project 35-21, Federal Aid Project 245, Aitkin Co., to Winston Bros. Co., 801 Globe Bldg., Minneapolis, $54,706; State Projects 23-21, Federal Aid Project 234, and State Project 23-22, Federal Aid Project 243, Benton Co., to Wilkins & Pettijohn, Park Rapids, $33,910 and $37,927 respectively; State Project 65-21 and 8-26, Federal Aid Project 248, Clearwater Co., grading to Winston Bros. Co., 801 Globe Bldg., Minneapolis, $93,464, culverts to M. W. Barnard & Son, Globe Bldg., Minneapolis, $19,747; State Project 7-29, Federal Aid Project 247, Blue Earth Co., to J. Brown, Madison Lake, $14,501; State Project 28-23, Federal Aid Project 246, Pope and Stearns Counties, excavation to Jorgenson Constr. Co., Summit, S. D., $44,186, culverts to Morris Constr. Co., Morris, $13,724; State Project 9,25, Federal Aid Project 244, Filmore Co., to A. Guthrie & Co., Inc., 366 Jackson St., $52,575. Noted Dec. 8 and 15.

Minnesota—State Hy. Comn., St. Paul, gravel surfacing State Project 28-28, Federal Aid Project 205, Todd Co., to S. J. Peterson, 300 West Lake St., Minneapolis, $19,910; State Project 28-21, Federal Aid Project 209, Stearns Co., and State Project 3022, Federal Aid Project 117, Mahnomen Co., to Dobbleman & Rasmussen, 4232 Colfax Ave., S., Minneapolis, $2,795 and $41,067, respectively; State Project 9-23, Sect. B, Federal Aid Project 224, Jackson Co., and State Project 3-24, Federal Aid Project 218, Wabasha Co., to Gatxmeier & Co., 5120 Upton Ave., S., Minneapolis, $14,086 and $16,591 respectively; State Project 2-25, Federal Aid Project 242, Cass Co., to G. W. Kinney, Foley, $8,539; paving State Project 1-21, Federal Aid Project 212, Dakota Co., to Butler Bros. Bldg. Co., Hamm Bldg., St. Paul, $2.26 per sq.yd. for concrete paving, $0.40 per cu.yd. for grading and $0.02 for overhaul, total $630,542. Noted Dec. 8.

Kan., Atchinson—Bd. Comrs. Atchinson Co., grading 6.212 mi. Sect. A, Federal Aid Project 100, to E. P. Olson, 2901 Monterey St., St. Joseph, Mo., $31,976; culverts on Sect. A and bridges on Sect. B, to Collins & Collins, Atchinson, $15,399 and $18,804 respectively.

Mo., Carthage—Grading and paving with 7 in. concrete, Garrison Ave. to Carterville Constr. Co., Carterville, $2.79 per sq.yd.; Main St., to Baker & Koontz, $2.65.

Tex., Dallas — Dallas Co., paving with asphalt macadam and gravel surfacing 12.5 mi. Preston Rd., to Miller Constr. Co., Sioux City, Ia.; bridges to A. Jackson, 424 Spring Ave. Total $207,581. Noted Dec. 8.

Tex., Denton—Denton Co. paving 8.54 mi. Denton-Sherman Rd., 512.36 cu.yd. concrete, 155,378 lb. structural and 29,208 lb. reinforcing steel, 9,885 sq.yd. concrete pavement, to Denton Constr. Co., Denton, $34,340. Noted Dec. 15.

Tex., Greenville—Hunt Co. grading, surfacing and bridging 9.66 mi. State Highway 1, Federal Aid Project 188, to Bd. of Permanent Rd. Comrs. of Hunt Co., c/o A. D. Duck, supt. construction, $231,289. Noted Nov. 24.

Oregon—State Hy. Dept., Portland, grading 18.1 mi. Elgin Sect. La Grande Enterprise Highway, Union Co., to Union Co. Court, La Grande, $67,610.

Washington—State Hy. Comn., Olympia, clearing, grading and surfacing 3 mi. Navy Yard Highway from Tidewater Creek to Charleston, Kitsap Co., to F. Morgan, Buckley, $79,584; 9 mi. Olympic Highway between Beaver and Forks, Clallam Co., to Reinseth & Co., Everett, $70,752; 3 mi. North Bank Highway from Crooks to Underwood, Skamania Co., to H. Pederson, Alaska Bldg., Seattle, $54,538; clearing and grading 2 mi. Ocean Beach Highway from Nasel to Johnson's Landing, Pacific Co., to Bentalla & Appletree, $26,138. Noted Dec. 1.

Wash., Morton—Paving 5 blocks in business section, 6, 915 sq.yd. concrete, to J. H. Collins, Morton, $34,400. Noted Dec. 1.

Cal., El Centro—Bd. Supervs. Imperial Co., paving Brawley-Holtville Rd., Imperial-Holtville Rd., Bramley-Holtville Rd. north, Imperial Ave., and Holtville-Bonds Corner Rd., to H. H. Peterson, Loma Portal, San Diego, $184,520.

Industrial Works

PROPOSED WORK

Mass., Boston — Blodgett, Ordway & Webber, 109 Kingston St., having plans prepared by Blackall, Clapp & Whittemore, archts., 20 Beacon St., 5 story warehouse, brick, concrete foundation, Harrison Ave. $225,000.

Conn., South Norwalk—Norwalk Box Co., North Main and Ann Sts., having plans prepared by Fletcher-Thompson, Inc., engrs., and archts., 542 Fairfield Ave., Bridgeport 4 story, 60x180 ft., brick factory, North Main St. $100,000.

N. Y., Hornell—Dairymen's League plans milk condensing plant. $200,000.

N. Y., New York—F. M. Schildwater, c/o Koch & Wagner, archts. and engrs., 32 Court St., Brooklyn, having plans prepared ice plant, brick, steel and concrete, plain foundation, Webster Ave. and 174th St., here. $750,000.

N. Y., New York—U-Need Ice Co., 2050 Amsterdam Ave., soon takes bids ice plant, brick, concrete and steel, plain foundation, Inwood Ave. $250,000. Koch & Wagner, 32 Court St., Brooklyn, archts. and engrs.

N. J., West Hoboken—J. Keavy, 357 Palisade Ave., had plans prepared by McDermont & Binda, archts., 582 Bergenline Ave., and takes bids in about 2 weeks, 1 story, 75x100 ft., brick garage, Malone St. $42,000.

Pa., Philadelphia — Phila. Steamheat & Eng. Co., Juniper and Cherry Sts., having plans prepared and takes bids early in spring, 2 story, 57 x 120 ft., brick and steel shop and office building, plain foundation, 3316-3320 Lancaster Ave. $60,000.

D. C., Washington—R. Nash having plans prepared by N. S. Prager, archt., 1930 Kearney St., N. E., 3 story, storage warehouse, concrete, brick and hollow tile. $150,000.

O., Cleveland—Specialty Mfg. Co., 11414 Madison Ave., plans 2 story, brick and steel factory, plain foundation. $50,000. Architect not selected.

O., Dayton—Terminal Cold Storage & Ice Co. having plans prepared by G. B. Bright Co., archts., 103 Marquette Bldg., Detroit, Mich., 8 story, 135 x 150 ft. refrigerating and cold storage plant, rein.-con. and brick, Eaker and Ludlow Sts. $500,000. H. J. Brenner, c/o B. & C. Baking Co., 233 Clinton St., pres.

O., Lakewood (Cleveland, P. O.) H. Kaplan, 2016 Marlowe Ave., plans 1 story, brick and timber garage, plain foundation, Madison Ave. near Marlowe Ave. $40,000. Private plans.

Ind., Indianapolis — Citizens Gas Co., South Pennsylvania and Maryland Sts., having plans prepared coke screening plant, concrete, brick and steel, Prospect St. $40,000. Private plans.

Ind., South Bend—Twentieth Century Garage, 121 South Lafayette St. having plans prepared by Austin & Shambleau, archts., 111 North Lafayette St., 2 story, 60x160 ft., brick, steel and terra cotta garage. $150,000.

Mich., Grand Rapids—Buick Sales Co. having plans prepared by Osgood & Osgood, archts., Grand Rapids, 3 story, 70 x 160 ft. brick and steel garage and sales building. $75,000. W. H. Adams, Campau, Bldg., Detroit, engr.

Mich., St. Joseph—Davidson & Weiss, archts., 53 West Jackson Blvd., Chicago, preparing plans and soon takes bids, two 1 story, 80 x 325 ft. and 80 x 162 ft. additions to factory, brick and wood, for Auto Specialty Mfg. Co. $100,000.

Ill. Charleston—Clover Leaf Produce Co., c/o M. Unler, mgr., plans 1 story, 100 x 150 ft. factory, brick and steel, here, $55,000. Architect not selected.

Ill., Harvey—Ongalls, Sheppard Div. of Wyman Gordon Co., having plans prepared for brick, steel and rein.-con. power house, $100,000. H. Johnson, c/o owner, engr.

Ill., Kankakee—Lockwood, Green & Co., archts., 38 South Dearborn St., Chicago, soon take bids, 3 story, 50 x 80 ft., rein.-con. factory, for Paramont Knitting Co., 337 West Madison St. $50,000.

Ill., Rockford — Peterson & Johnson, archts., 406 Swedish Amer. Bank Bldg., preparing plans 4 story, 128x211 ft., factory, brick, stone and steel. $135,000. Owners name withheld.

Ill., Sterling—Sterling Canning Co., c/o C. W. Sauers, pres., plans 2 story cannery, brick and steel. $45,000. Architect not selected.

Wis., Antigo—C. W. Fish Lumber Co., Elcho, having plans prepared 1 story, 60x75 ft. mill, rein.-con. and brick, here. $45,000. Private plans.

Wis., Chippewa Falls—Chippewa Wood Mfg. Co. having plans prepared 2 story, 50 x 95 ft., rein.-con., brick and steel factory, plain foundation. $65,000. F. Sterzik, mgr. Private plans.

Wis., Chippewa Falls—F. Sterzik, pres. Natl. Toy & Tinsel Co., 16th and Hamilton Sts., Manitowoc, having plans prepared 2 story, 52x76 ft., rein.-con., brick and steel factory, here. $50,000. Private plans.

Wis., Madison—Ellwood Tractor Mfg. Co., c/o W. S. Heddles, Assn. of Commerce, Cantwell Bldg., having plans prepared 2 story, 60 x 150 ft., rein.-con., brick and steel factory, plain foundation. $50,000. Private plans.

Wis., Madison—Universal Grocery Co., 113 South Webster St., plans 4 story, 70 x 200 ft., rein.-con., brick and steel warehouse, plain foundation. $150,000. R. H. Hammel, pres. Architect not selected.

Wis., Oconto Falls—Falls Mfg. Co. having plans prepared 1 story, 60 x 200 ft. paper mill, rein.-con., brick and steel, plain foundation. $150,000 Private plans. D. G. Moon, Marinette, engr.

Wis., Orfordville—O. A. Roen plans 1 story, 50 x 90 ft., rein.-con., brick and steel machine shop, plain foundation. $45,000. Architect not selected.

Wis., Oshkosh—F. E. Zuelke, 238 Waugoo St., having plans prepared by Auler & Jensen, archts., F. R. A. Bldg., 2 story, 50 x 54 ft. ice cream factory, rein.-con., brick and steel, Main St. $40,000.

Mo., St. Louis—C. Ulman, 4550 Lindell Ave., having plans prepared by P. J. Bradshaw, archt., International Life Bldg., 1 story, brick and steel garage, 221 York Ave. $40,000.

Cal., Burbank—C. F. Braun Co., 604 Mission St., San Francisco, having plans prepared foundries and machine shops, brick, steel, glass and heavy mill, here. $400,000. Private plans.

Cal., Fresno—W. P. Fuller Paint Co. having plans prepared by E. Mathewson, archt., Cory Bldg., 145 x 244 ft. plant. $100,000. H. J. Brunnier, Sharon Bldg., San Fancisco, engr.

BIDS DESIRED

Ill., Chicago—Western Fixtures Mfg. Co., 3039 Elston Ave., receiving bids 1 story, 80 x 119 ft., addition to factory, mill construction, 3033-3037 Elston Ave. $40,000. S. V. Ablamovitcz, 2937 North Talman Ave., archt.

Wis., Racine—Jan. 7, by E. L. M. Tire Co., Deane Blvd. and R.R. tracks, 2 story, 80 x 130 ft. brick and timber addition to factory, plain foundation, Deane Blvd. Private plans.

Mo., St. Louis—Jan. 5, by P. J. Bradshaw, archt., International Life Bldg., 1 story, brick and steel garage, 221 York Ave., for C. Ulman, 4550 Lindell Ave. $40,000. Noted Dec. 22.

Cal., San Francisco—O'Brien Bros., Inc., archts., 240 Montgomery St., receiving bids 1 story, rein.-con. garage, Jones St., for R. W. Kern, 1329 Sacramento St. $40,000.

BIDS RECEIVED

N. Y., Marcy — State Hospital Comn., Albany, opened bids Dec. 21, kitchen and cold storage building, for acute patients at Marcy State Hospital, here, construction, from A. J. Burgess Co., Utica, $130,970, Shane Constr. Co., 302 Herald Bldg., Syracuse, $155,744, R. Richards & Son, 246 Elizabeth St., Utica, $166,500; refrigeration, from Carbondale Co., 175 Christopher St., New York, $33,485. Noted Dec. 8.

Industrial Works (Continued)

Wis., Wauwatosa — Milwaukee Co. Bd. Trustees, 2 story, 87 x 154 ft., storage plant, brick, plain foundation, Watertown Plank Rd., from Jahns & Knuth, 1915 Chestnut St., Milwaukee, $77,500; W. F. Tubesing, 130 Chestnut St., Wauwatosa, $87,000; P. W. Bringe, 940 3rd St., Milwaukee, $99,892.

CONTRACTS AWARDED

N. J. Jersey City—Erie R.R., 50 Church St., New York, 1 story, 23 stall, brick and steel roundhouse, plain foundation, incl. machine shop and boiler house, Pavonia Ave., here, to Austin Co., Bulletin Bldg., Phila., $75,000.

Pa, Philadelphia — Grubnau Bros., 114 Arch St., 1 story, 76 x 205 ft. rein.-con., brick and steel factory, plain foundation, 2nd and Erie Aves., to Austin Co., Bulletin Bldg., $40,000.

O., Cleveland—M. Marmorstein, Ullmer Bldg., 2 story, 68 x 195 ft., brick, steel and concrete garage and commercial building, plain foundation, 2500 Euclid Ave., to A. A. Lane Constr. Co., 1869 East 55th St., $75,000.

Ind., Mishawaka—Mishawaca Woolen Co., 6 story, 76 x 105 ft., brick warehouse, to G. H. Christman Constr. Co., 302 Union Trust Bldg., South Bend, $500,000.

Ill., Chicago — Newhouse & Bernham, archts., 4630 Prairie Ave., 1 story, 101 x 180 ft. garage, brick and steel, 5018 Cottage Grove Ave., to A. T. Herlin, 6117 Evans Ave., for H. Salvat, 5322 Harper Ave. $50,000. Noted Sept. 15.

Ill., Chicago—See "Building."

Ill., Chicago — Dubow Glove Co., 1911 Milwaukee Ave., 3 story, 35 x 45 ft. factory addition, brick, at 1915 Milwaukee Ave., to Fish & Wasserstrum, c/o Ludgin & Leviton, archts., 53 West Jackson Blvd., $40,000.

Ill., Kankakee—Paramount Knitting Co., 377 West Madison St., Chicago, 2 story, 50 x 80 ft. factory addition, brick and wood, plain foundation, here, to Hutter Constr. Co., Western Ave., Fond du Lac, Wis., $40,000.

Ill., Rock Island—Rock Island Transfer & Storage Co., 4 story, 75 x 100 ft., rein.-con. warehouse, 1st and 17th Sts., to P. H. Lorenz, 506 15th St., Moline, $150,000. Noted Nov. 24.

Ill., Rockford—Hess & Hopkins Leather Co., c/o F. L. Morgan, secy., 1 story, 80x 115 ft. tannery, brick and steel, by day labor. $40,000. Noted Dec. 22.

Wis., Appleton — Standard Oil Co., 68 Wisconsin St., Milwaukee, 2 story, 50 x 72 ft., brick and concrete warehouse, plain foundation, here, to Brun Constr. Co., 387 Clinton St., Milwaukee, $40,000.

Wis., Hortonville—W. L. Schroeder will build 1 story, 50 x 120 ft. rein.-con., brick and steel factory, plain foundation, by day labor. $50,000.

Wis., Neenah—Tri City Nash Co., c/o G. Sande, 110 North Church St., 55 x 150 ft., rein.-con., brick and steel garage, plain foundation, Commercial St., to L. P. Nielsen, 408 Isabella St., $60,000. Noted Dec. 1.

Wis., Wauwatosa—Modern Builders, Inc., Spring Ave. and Vliet St., will build 1 and 2 story, 40 x 100 ft., rein.-con., brick and steel factory, by day labor. $50,000.

Kan., Topeka — Seymour Packing Co., 200-202 North Kansas St., 3 story, 50 x 150 ft. rein.-con., brick and stone plant, to F. M. Spencer & Son, Mulvane Bldg., $150,000.

Kan., Wichita—Wichita Ice & Storage Co., 213 South Rock Island Ave., 5 story, 75 x 90 ft. rein.-con. and brick plant, to H. I. Ellis Constr. Co., 927 North St. Francis Ave., $200,000. Noted Nov. 3.

Mo., St. Louis.— C. Remabecker, 4263 Juniata Ave., 1 story, 120 x 160 ft., brick, steel and terra cotta garage, Chippewa and Nebraska Aves., to Fisher Bros., Grand Ave. and Meramec St., $50,000. Noted Dec. 8.

Cal., Los Angeles—California Telephone Co., 1 story, 250 x 250 ft., brick, garage, 9th and San Pedro Sts., to W. Crowell, 902 South Alvarado St., $115,450.

Buildings

PROPOSED WORK

Mass., Northampton—Theatre and Store —Goldstein Bros., Bridge St., Springfield, having plans prepared by Mowll & Rand, archts., 50 Bromfield St., Boston, 1 story, 100 x 130 ft., brick, steel and concrete, King St., here. $150,000.

Mass., West Springfield—High School—Plans 3 story brick, Elm St. $350,000. H. K. Chandler, 76 Bliss St., chn. of com. Architect not selected.

Conn., Bristol—St. Josephs Church, South Main St., plans 1 story, brick and stone. $150,000. Architect not selected.

Conn., Hartford—Store and Auditorium —M. M. Kupperstein, 26 State St., having plans prepared by Berenson & Moses, archts., 1026 Main St., 2½ story, 80 x 110 ft., rein.-con. and brick, Capitol Ave.

Conn., West Haven—High School—School Comrs. having plans prepared by R. W. Foote, archt., 185 Church St., New Haven, 3 story, brick, Campbell Ave. $350,000.

N. Y., Astoria (Long Island City P. O.)—Apartment—A. J. Oliva, 717 Crescent St., plans 6 story, Jamaica and 4th Aves. $350,000. Architect not selected.

N. Y., Brooklyn — Apartment — Trieb Building Co., o/c M. A. Cantor, archt. and engr., 371 Fulton St., having plans prepared 4 story, 100 x 100 ft., brick, steel and stone, plain foundation, Bedford Ave. and Farragut Rd. $150,000.

N. Y., Brooklyn—School—Bd. Educ., 500 Park Ave., New York, having plans prepared by C. B. J. Snyder, archt. and engr. Municipal Bldg., New York, P. S. 188, 5 story, brick, steel and stone, plain foundation, Neptune Ave. and 33rd St., here. $750,000.

N. Y., Buffalo—School—Mt. St. Joseph Academy, 2064 Main St., having planss prepared by H. L. Spann, archt., 52 West Chippewa St., 2 story, 90 x 150 ft., rein.-con. and brick, Humboldt Parkway. $250,000.

N. Y., New York—Apartment—Accidental Holding Co., 123 William St., plans 5 story, 80 x 180 ft., Andrews Ave. and 179th St. N. Wilson, pres. Architect not selected.

N. Y., New York—Apartment—Margon & Glaser, archts. and engrs., 2806 3rd Ave., prepared plans 5 story 90 x 110 ft., brick, steel and stone, plain foundation, West 197th St. $200,000. Owners name withheld.

N. Y., New York—Apartment—Margon & Glaser, archts. and engrs., 2806 3rd Ave., prepared plans 5 story, brick, steel and stone, plain foundation, 230th St. and Kingsbridge Rd. $450,000. Owners name withheld.

N. Y., New York — High School—Bd. Educ., 500 Park Ave., plans 5 story, brick, steel and stone, plain foundation, 2nd Ave. and 67th St. $1,000,000. C. B. J. Snyder, Municipal Bldg., archt. and engr.

N. Y., New York — High School — Bd. Educ., 500 Park Ave., having plans prepared by C. B. J. Snyder, archt. and engr., Municipal Bldg., brick, steel and stone, plain foundation, Amsterdam Ave. and 183rd St. $300,000.

N. Y., New York—School—Bd. Educ., 500 Park Ave., soon takes bids P. S. 139, brick, steel and stone, plain foundation, 139th St. and Lenox Ave. $850,000. C. B. J. Snyder, Municipal Bldg., archt. and engr.

N. Y., New York—Show Room and Office —Eighteen Forty One Bway. Realty Co., c/o B. H. and C. N. Whinston, archts. and engrs., 2 Columbus Circle, soon takes bids brick, steel and stone, plain foundation, Bway. and 60th St. $350,000.

N. Y., Rochester—Y. M. C. A., Gibbs St., plans 2 story, 130 x 140 ft., brick, Arnett Blvd. and Kenwood Ave., also 2 story, 86 x 120 x 140 ft., brick, Monroe Ave. $100,000 each. Architect not selected.

N. J., Newark—Synagogue—B'nai Abraham Synagogue, c/o N. Myers, archt. and engr., 7 Nelson Pl., soon lets contract brick and stone synagogue and social center, plain foundation, Clinton Ave. $650,000.

N. J., Paulsboro—School—Bd. Educ., c/o P. Miller, pres., Gibbstown, having plans prepared by J. I. Bright, archt., Otis Bldg., Philadelphia, 2 story, 16 room, here. $150,000.

Pa., Johnstown — Store—J. Thomas & Sons plan 4 story, 80 x 120 ft., concrete, brick and steel, Franklin St. $200,000.

Pa., York—High School—School Bd., c/o C. M. Crider, having plans prepared by Hamme & Whitman, archts., City Bank Bldg., York, and J. I. Bright, associated archt., Otis Bldg., Phila., 3 story, 235 x 245 ft. rein.-con., brick and steel, plain foundation, Beaver and College Sts. $350,000.

Pa., South Fork — Bank — First Natl. Bank, plans 3 story, 70 x 80 ft. brick, steel and stone, Maple and Main Sts. $150,000.

D. C., Wash.—Office—F. H. Smith Co., takes bids about Jan. 15, 10 story, limestone, at 815 15th St., N.W. $900,000. J. H. DeSibour, Hibbs Bldg., archts.

Va., Virginia Beach—Hospital and Sanitarium—Bybees Natl. Chiropractic Sanitarium and Institute having plans prepared by P. B. Moser, archt., Dickson Bldg., Norfolk, 6 story, 100 x 125 ft., terra cotta, brick and steel. Waterfront St. $300,000. H. R. Bybee, pres.

W. Va., Charleston—High School—Bd. Educ. had plans prepared 3 story, brick and stone, Ruffner Ave. $200,000. Warne, Tucker & Patterson, Charleston, archts.

W. Va., Clarksburg — Hotel — Waldo Hotel opens bids about June 1, 3 story brick addition. $500,000. Holmboe & Pogue, c/o owner, archt.

N. C., High Point — Municipal—Plans municipal building. $150,000. J. W. Hedrick, mayor. Architect not selected.

Fla., Daytona—Hospital—G. N. Rigby, C. C. Bohannon and associates plan hospital and sanitarium. $500,000.

Fla., Miami — Court House—Dade Co. plans rein.-con. and steel. $200,000. H. Crabtree, co. engr.

Ala., Anniston — School—Barber Industrial School for Girls, c/o J. F. Sherer, soon takes bids 4 story, 115 x 180 ft., brick, stone and steel, plain foundation. $250,000. T. Stephens, Temple Bldg., Camden, N. J., archt.

O., Cincinnati — High School—Kunz & Beck, archts., 22 Carew Bldg., opens bids about March 1, 3 story, 72 x 120 ft., rein.-con., brick and steel, Iliff Ave., for Catholic Parish. $200,000. W. Schmidt, pastor.

O., Cleveland—Apartment—A. Land, 1935 Euclid Ave., having plans prepared by J. M. Miller, archt., 1935 Euclid Ave., 3 story, brick and steel, plain foundation, southeast corner Coventry Rd and Hampshire Lane. $175,000.

O., Cleveland—Commercial—L. W. Kelly, Hippodrome Bldg., plans brick and steel, plain foundation, on lot 116 x 185 ft., on Bolivar Rd. and East 14th St. $150,000. Architect not selected.

O., Cleveland—Commercial—F. Stein, 2195 East 93rd St., having plans prepared by A. F. Janowitz, archt., Permanent Bldg., 1 story, 50x230 ft., brick and timber, plain foundation, 8511 Lorain Ave. $150,000.

O., Cleveland—Commercial and Theatre —Utica Realty Co., c/o G. A. Ebeling, archt., 602 Newman-Stern Bldg., having plans prepared 2 story, 50 x 150 ft., brick, steel and concrete, plain foundation, 1773 East 55th St. $150,000.

O., Columbus—Dormitory—Westminster Foundation Presbyterian Church, having preliminary sketches made for mens dormitory, Neil Ave. $150,000. Address M. Breeze, 80½ North High St. Architect not selected.

O., Columbus—Home—R. L. Wirtz, 2028 Iuka Ave., having sketches made 3 story home for Builders and Traders Exch. $200,000.

O., Sidney—Temple—Temperance Lodge 73, F. & A. M., c/o C. H. Neil, plans 3 story, rein.-con. and brick. $150,000. Architect not selected.

Ind., Beech Grove — School — Catholic School having plans prepared by E. E. Dunlap & Co., archts., State Life Bldg., Indianapolis, 2 story, 65 x 100 ft., brick and stone. $150,000. P. Killian, pastor. W. Gavin, member Bd. Trustees.

Ind., Chalmers—School—J. A. Kassabaum, trustee, having plans prepared by Riedel & Zink, archts., 2 story, 75x110 ft., brick and stone. $150,000.

Ind., Evansville — Church — St. Johns Church, 3rd and Ingle Sts., having plans prepared by Fowler & Cappelle, archts., Amer. Trust Bldg., 2 story, 55 x 150 ft., brick and stone, 3rd and Ingle Sts. $150,000. W. N. Dressel, pastor.

Ind., Evansville — Church — St. Johns Church having plans prepared by J. T. Comes, archt., Renshaw Bldg., Pittsburgh, Pa., 2 story, 60x100 ft., brick and stone. $150,000.

Ind., Ft. Wayne—Office—E. H. Seelberg, 21 White Apartments, having plans, prepared by A. M. Strauss, archt., 706 Shoaff St., 2 story, 40x70 ft., brick, East Berry St. $150,000.

Ind., Frankfort—High School—Bd. Educ. having plans prepared by R. F. Daggett, archt., 960 Lemke Annex, Indianapolis, 2 story, 100 x 160 ft., rein.-con. and brick. $150,000.

Ind., Indianapolis — Apartment—H. C., Baker, 607 East 32nd St., having plans prepared by Myers & Coffin, archts., 412 Traction Trust Bldg., 2 story, 40 x 73 ft., brick, 3311 College Ave. $150,000.

Buildings (Continued)

Ind., Indianapolis — Apartment—H. N. Maloney Apartment Co., c/o E. I. Smith of E. W. Chaille Co., 921 Hume-Mansur Bldg., having plans prepared brick and limestone, 34th and Meridian Sts. $350,000. Private plans.

Ind., Indianapolis—Church—First United Brethren Church, W. R. Mommer, chn. building com., c/o Delco Light Products Co., 60 West New York St., having revised plans prepared by Rubush & Hunter, archts., 428 Amer. Central Life Bldg., 2 story, 80 x 110 ft., brick and stone, Walnut and Park Sts. $150,000.

Ind., Indianapolis—Office—H. H. Woodsmall, Fidelity Trust Bldg., plans 4 story, rein-con., brick and steel, North and Delaware Sts. $20,000. Architect not selected.

Ind., Indianapolis—School—St. Joan of Arc Church, 42nd and Ruckle Sts., having plans prepared by D. A. Bohlen & Co., archts., Majestic Bldg., 2 story, 85 x 110 ft., brick, 42nd St. $150,000. J. Chartrand, Bishop.

Ind., Indianapolis — Temple — Irvington Lodge No. 666, F. and A. M., c/o J. Fitzgerald, chn. building com., 204 Hume-Mansur Bldg., having plans prepared by C. E. Bacon, archt., 605 Odd Fellows Bldg., 3 story, 100 x 100 ft., brick and terra cotta, East Washington St. $150,000.

Ind., Knightville—School—O. Boyd, trustee, having revised plans prepared by Johnson, Miller & Miller, archts., 30 North 5th St., Terre Haute, 2 story, 80 x 140 ft., brick. $150,000.

Ind., Layafette—Union—Purdue University, Student Union, having plans prepared by Pond & Pond, archts., 64 Van Buren St., Chicago, 2 story, brick, stone and steel. $1,000,000.

Ind., Loree—School—B. F. Jenkins, trustee, having plans prepared by E. E. Dunlap & Co., archts., Harrison Bldg., Kokomo, 2 story, 95 x 125 ft., brick. $150,000.

Ind., Marion—Lodge—Marion Lodge of Eagles, plans 3 story, brick. $150,000. Architect not selected.

Ind., New Albany—Apartment—A. Moosmiller, archt., 9th and Market Sts., will prepare plans for brick apartment house. $150,000. Owners name withheld.

Ind., Newcastle—School—Bd. Educ. having plans prepared by H. Folz, archt., Lemcke Annex, Indianapolis, 2 story, 95x125 ft., brick. $200,000.

Ind., Poneto—School—O. F. Tate, trustee, plans 2 story, 80 x 110 ft. brick. $150,000. E. I. Brown, Studebaker Bldg., South Bend, archt.

Ind., Shelbyville—School—Bd. Educ. having plans prepared by J. E. Koph & Woolling, archts., 403 K. of P. Bldg., Indianapolis, 2 story, 87x110 ft., brick. $150,000.

Ind., South Bend—Bank—Union Trust Co., 204 South Michigan Ave., having revised plans prepared by Austin & Shambleau, archts., 111 North Lafayette St., 12 story, 60x125 ft., brick, granite and steel addition. $800,000.

Ind., South Bend — Church — Sunnyside Presbyterian Congregation having plans prepared by Austin & Shambleau, archts., 731 J. M. S. Bldg., 2 story, 65x90 ft., brick and stone. $150,000.

Ind., Terra Haute—Church—First Church of Christ Scientist having plans prepared by Johnson, Miller & Miller, archts., 30 North 5th St., 2 story, 90x110 ft., brick and stone. $150,000.

Mich., Ann Arbor—Gymnasium—Michigan Athletic Assn. having tentative plans prepared for 160 x 300 ft. rein.-con., brick and steel, Ferry Field. $250,000. Architect not selected.

Mich., Detroit—Bank—Detroit Branch of Federal Reserve Bank of Chicago, West Congress St., Detroit, plans 4 or 6 story, with foundation for additional stories, 100 x 160 ft. rein.-con., brick, steel and stone, caisson foundation, Fort and Shelby Sts. $750,000. Architect not selected.

Ill., Aurora — Apartment — M. E. Wolf, 275 Lake St., having plans prepared by W. Scott Armstrong, archt., 127 North Dearborn St., Chicago, 3 story, 100x200 ft., brick, steel, rein.-con. and stone, Lake St. $300,000.

Ill., Benton—Court House—Franklin Co., election in April to vote on $200,000 bonds, for court house.

RESERVOIR—CLEVELAND, OHIO

Contract No. 2

Bids were received Nov 4 by Dept. of Pub. Utilities, Div. Water, for constructing Baldwin Reservoir, from (A) Stange & Walsh Constr. Co., St. Clair Bldg.; (B) Thompson-Starrett Co., Perry-Payne Bldg.; (C) Hunkin-Conkey Constr. Co., 601 Century Bldg.; (D) Mellon-Stuart Co., 2112 Oliver Bldg., Pittsburgh, $2,029,501; (E) Central Dredging Co., 600 Bangor Bldg., $2,109,051; (F) Bates & Rogers Constr. Co., B. of L. E. Bldg., $2,309,224. The unit bids of the lowest 3 bidders were as follows:

	A	B	C
57,000 cu.yd. excavation	$2.00	$2.03	$2.50
16,500 cu.yd. concrete—wall foundations	13.00	10.70	10.52
29,500 cu.yd. concrete—walls, pilasters, conduit	13.00	11.68	11.90
7,500 cu.yd. concrete—sub-floors and foundations for columns	13.00	9.70	11.76
2,200 cu.yd. concrete-pipe covers, sumps and foundations for overflows	13.00	11.10	11.61
16,000 cu.yd. concrete—groined and barrel arches	13.00	19.10	19.00
4,800 cu.yd. concrete—flumes, stiffening walls and overflows	13.00	22.30	20.25
13,500 cu.yd. concrete—floors	13.00	12.18	12.08
8,500 cu.yd. concrete—columns	13.00	15.45	16.92
5,600 cu.yd. concrete—valve house	13.00	12.21	12.46
2 30-in. cast iron manhole frames and covers	70.00	188.00	97.73
2 43-in. cast iron pressure manhole frames and covers	125.00	142.00	131.11
59 24-in. cast iron ventilating manhole frames and covers	20.00	26.00	24.80
4 36-in. cast iron ventilating manhole frames and covers	40.00	57.00	41.88
2 48-in. cast iron ventilating manhole frames and covers	65.00	95.00	61.45
120.000 cu.yd. fill, embankment and subgrading	.40	.85	.85
16,000 cu.yd. puddle	2.00	2.52	2.57
78,000 sq.yd. top soil and seeding	.10	.19	.30
1,200 cu.yd. broken stone fill	3.00	4.73	4.05
3,500,000 lb. reinforcing steel	.03	.031	.0294
7,000 lb. structural steel	.10	.14	.137
820 tons cast iron—standard lengths, bell and spigot pipe	7 .00	63.40	65.93
120 tons cast iron—standard fittings, bell and spigot pipe	150.00	116.50	148.12
80 tons cast iron—special fittings, bell and spigot pipe	165.00	126.00	154.08
5 tons cast iron—standard short length flanged and bell, and flanged and spigot pipe	165.00	135.00	134.43
5 tons cast iron—standard fittings flanged pipe	225.00	158.00	218.29
60 tons cast iron—special fittings, flanged pipe	140.00	110.30	121.07
240 tons cast iron—plain pipe, no bell, spigot or flange	70.00	66.50	69.14
5 tons cast iron—miscellaneous and special castings	135.00	147.00	147.24
5 60-in. valves	2,500.00	2,410.00	2,509.04
7 48-in. valves	1,500.00	1,410.00	1,442.04
2 36-in. valves	900.00	985.00	988.54
2 30-in. valves	675.00	740.00	748.47
2 12-in. valves	90.00	77.00	76.27
7 6-in. valves	30.00	31.00	26.15
26,000 lin.ft. tile drain	.10	.19	.32
450 lin.ft. vitrified pipe drain	6.00	5.57	3.74
6,500 lb. hand railing	.30	.18	.20
13,500 lb. copper expansion joints	.30	.41	.45
2 5x7-ft. sluice gates	1,200.00	2,425.00	1,290.00
Brass pipes, valves, etc., for float tube connection (lump sum)	200.00	235.00	106.57
Stop plank and weirs (lump sum)	1,000.00	1,775.00	1,660.00
Number of calendar months to complete work	14	14	18
Extended totals	$1,824,125	$1,933,248	$1,994,833

Ill., Carbondale—High School—Bd. Educ., c/o J. W. Mitchell, secy., having plans prepared by R. Z. Gill, archt., Murphysboro, 2 story, brick, stone and rein.-con. $160,000.

Ill., Chicago—Office and Sales—Davidson & Weiss, archts., 53 West Jackson Blvd., soon receives bids 10 story, rein.-con., brick and steel, Michigan Ave. and 13th St., for E. C. Ruttenberg, 6 North Franklin St. $450,000.

Ill., Chicago—Store and Hotel—Loewenberg & Loewenberg, archts., 111 West Monroe St., soon receive bids 4 story, 141 x 187 ft., rein.-con., brick, steel and terra cotta, Howard St. and Bosworth Ave., for L. J. Rubin & Co., 214 South Market St. $350,000.

Ill., Evanston—Hotel and Store—W. C. Jones, archt., 19 South La Salle St., Chicago, preparing preliminary plans 7 story, rein.-con., brick and steel, here. $1,500,000. Owners name withheld.

Ill., Joliet — Apartment-Hotel — B. J. Bruns, archt., 1548 Belmont Ave., Chicago, takes bids about Jan. 15, 9 story, rein.-con., brick and steel. $500,000. Owners name withheld.

Ill., Martinsville—School—Bd. Educ. having plans prepared by Johnson, Miller & Miller, archts., 30 North 5th St., Terre Haute, Ind., 2 story, 80 x 125 ft., brick, steel and rein.-con. $150,000.

Ill., Melvin—Bd. Educ. having plans prepared by A. L. Pillsbury, archt., 710 Peoples Bank Bldg., Bloomington, 2 story, steel, rein.-con., brick and stone. $165,000. W. J. McKenna, clk.

Ill., Moline—Club—Country Club Com., c/o R. E. Stalz, chn., 2356 6th St., East Moline, plans 2 story, brick, rein.-con. and stone. $175,000. Architect not selected.

Ill., Monmouth—Stadium and Gymnasium—Monmouth College, 833 East Bway., having plans prepared, brick, steel, rein.-con. and stone stadium and gymnasium, $150,000. T. H. McMichael, pres. Architect's name withheld.

Ill., Rock Island — High School — Bd. Educ. having plans prepared by Cervin & Horn, archts., 311 Safety Bldg., 2 story, brick, stone and steel. $200,000. Noted Dec. 1.

Ill., White Hall—High School—Bd. Educ., c/o H. W. Shirley, secy., having plans prepared by A. L. Pillsbury, archt., Peoples Bank Bldg., Bloomington, 2 story, brick, rein.-con., and stone, $150,000.

Wis., Beloit—Theatre—Beloit Amusement Co., c/o E. S. Hall, secy. of State, Madison, soon takes bids, 1 and 2 story, 93 x 130 ft., brick, plain foundation, here. $200,000.

Wis., Fond du Lac—Hospital—St. Agnes Hospital, c/o F. S. Wiley, 100 East Division St., plans 4 story, 200 x 250 ft., rein.-con., brick and steel, plain foundation. $500,000. Architect not selected.

Wis., Oconomowoc—High School—School Bd. having plans prepared by Parkinson & Dockendorff, archts., Linker Bldg., La Crosse, 2 story, 68 x 148 ft., brick and concrete, plain foundation. $185,000 to $20,000. E. W. Delaney, secy.

Wis., West Bend—High School—Bd. Educ. having plans prepared by Foeller & Schoeber, archts., 123 North Washington St., Green Bay, 2 story, 50 x 200 ft. rein.-con. brick and steel, plain foundation. $250,000.

Ia., Decorah — High School — Bd. Educ. plans 2 story, rein.-con., brick, tile and stone. $150,000 bonds voted. C. F. Barfoot, clk. Engineer not announced. Noted Dec. 8.

Minn., Minneapolis—School etc.—Augsburg Seminary, c/o G. Sverdrup, pres., 8th St. and 21st Ave., S., plans brick, tile and stone, at Wood Lake, $300,000. Architect not announced.

Minn., Minneapolis—School—De La Salle Institute, c/o A. Dowling, Archbishop, 226 Summit Ave., St. Paul, plans 3 story, rein.-con., brick, tile and stone, at 17 Grove St., here, $250,000. Architect not announced.

Minn., Olivia—High School—Bd. Educ. receives bids in January, 2 story, rein-con., brick, tile and stone, $180,000. W. L. Alban, 347 Endicott Bldg., St. Paul, archt.

Minn., Virginia—City Hall—City, c/o A. E. Bickford, clk., having plans prepared by A. W. Kerr & Co., archts., 240 La Salle Bldg., Minneapolis and Virginia, 4 story, rein.-con., brick, tile and stone. $300,000.

Kan., Salina—Temple—Masonic Temple Aid Assn. having plans prepared by T. L. Condron Co., archts., 53 West Jackson Blvd., Chicago, 6 story, 123 x 162 ft. rein.-con., brick and steel. $1,000,000.

Buildings (Continued)

Mo., Carrollton — Home — State Bd. Eleemosynary Institutions, Jefferson City, plans 3 story, rein.-con., brick and steel home here, for neglected children. $200,000. Architect not selected.

Mo., Columbia — Chemistry — University of Missouri, c/o L. Cowan, secy., having plans prepared by J. P. Jamieson, archt., Security Bldg., St. Louis, 2 story, rein-con., brick and stone. $175,000.

Mo., Columbia — Dormitory — Stephens College plans 3 story, rein.-con. and brick, on campus. $150,00. Architect not selected.

Mo., Columbia — Temple and Students Building—Oddfellows of Missouri, Columbia Branch, c/o G. Starrett, chn., Building Comn., plans 3 story, rein.-con., brick and stone. $150,000. Architect not selected.

Mo., Greenfield—Court House—Dade Co. election Jan. 31 to vote on $160,000 bonds, 2 story, brick, stone and steel. Achitect not selected.

Mo., Kansas City—Hotel—P. J. Bradshaw, archt., International Life Bldg., St. Louis, soon lets contract 15 story, 110 x 203 ft., rein.-con., brick and stone, here, for Bellerive Investment Co., c/o A. M. Cornwall, 111 North 7th St., St. Louis. $1,000,000. Noted Nov. 24.

Mo., St. Joseph—Lodge—St. Joseph Aerie 19, Fraternal Order of Eagles, 517 North 5th St., plans 3 story, rein.-con. and brick. $175,000. Architect not selected.

Mo., St. Louis—Bank—A. B. Groves, archt., Stock Exch. Bldg., soon lets contract 2 story, 94 x 112 ft., brick, stone and steel, Jefferson and Franklin Sts., for Jefferson Bank, c/o V. T. Moberly, pres. $150,000.

Mo., St. Louis—Sales—Thirty-Sixth St. Realty Co., 111 North 7th St., having plans prepared by P. J. Bradshaw, archt., International Life Bldg., 96x144 ft., rein.-con., brick and stone, 3510 Lindell Blvd. $150,000.

Cal., Fresno—Hotel and Store—F. Dodd and F. W. Williams, having preliminary plans prepared by B. G. McDougall, archt., 381 Bush St., San Francisco, 10 story, rein.-con., Tulare St. and Bway. $500,000.

Cal., Los Angeles — Jail—Bd. Supervs. Los Angeles Co. having plans prepared by Allied Architects Assn., 1128 Citizens Bank Bldg., 11 story, 195 x 226 ft., Temple, Buena Vista and New High Sts. $2,500,000. Noted April 21.

Cal., San Luis Obispo—Hotel—Carpenter Hotel Co., having preliminary plans prepared by G. Rushforth, archt., 354 Pine St., San Francisco, 5 story, rein.-con. and brick. $250,000.

BIDS DESIRED

Conn., Greenwich—Apartment—F. G. C. Smith, archt., Smith Bldg. receiving bids 5 story, 54x100 ft., rein.-con. and brick, plain foundation. Greenwich Ave., for F. Zittell, c/o architect. $150,000.

N. Y., New York—Apartment—E. Waters, c/o J. M. Felson, archt. and engr., 1133 Bway., 5 story, brick, steel and stone, plain foundation, Grand Ave. and 190th St. $150,000. Work will be done by separate contracts.

N. Y., New York — Apartment—M. J. Kramer, c/o G. F. Pelham, archt. and engr., 200 West 72nd St., 7 story, brick, steel and stone, plain foundation, Hamilton Pl. $750,000. Work will be done by separate contracts.

N. Y., New York—Bank and Office—Jan. 5, by Trowbridge & Livingston, archts. and engrs., 512 5th Ave., 23 story, brick, steel and stone, plain foundation, Wall, William and Pine Sts., for Bank of America, 44 Wall St. $2,500,000. Noted Nov. 10.

N. Y., New York—Theatre—Jan. 5, by Reilly & Hall, archts. and engrs., 405 Lexington Ave., 3 story, 100 x 120 ft., brick, steel and stone, plain foundation, MacDougal and West Houston Sts., for Fagazy & Rosetti, c/o architects. $150,000. Noted Nov. 3.

N. J., Secaucus (Weehawken P. O.)—Insane Asylum—Jan. 12 (change of date) by Bd. Freeholders Hudson Co. (Jersey City) five 2 story, brick and steel buildings, here. Cost between $750,000 and $1,000,000. J. T. Rowland, Jr., 100 Sip Ave., Jersey City, archt. Noted Dec. 15.

Pa., Gettysburg—Hotel—Jan. 5, E. B. Medoff, archt., Lincoln Bldg., Philadelphia, 4 story, 100 x 175 ft. brick and steel, plain foundation, for Lynch Bros., Eagle Hotel. $150,000. Noted Nov. 24.

Pa., Philadelphia—Theatre and Office—T. W. Lamb, archt., 644 8th Ave., New York, receiving bids 16 story, 129 x 129 ft., rein.-con., brick and steel, caisson foundation, 16th and Market Sts., here, for Fox Film Corp., 126 West 46th St., New York. $1,000,000.

N. C., Fayetteville—School—Jan. 10 by building com., State Colored Normal School, for several buildings. Bids are asked on individual units and also in blanket form. $185,000. H. L. Cook, chn. S. S. Dixson, Fayetteville, archt.

La., New Orleans—Community House—Jan. 2, by Daugherty & Gardner, archts., Stahlman Bldg., Nashville, Tenn., 3 story, rein.-con., brick and steel, Rampart and Governor Sts., for Methodist Episcopal Bd. of Missions. $165,000.

Tenn., Murfreesboro—Dormitory—Jan. 5 by J. B. Brown, supt. instruction, State Bd. Educ., State Capitol, Nashville, 2 story, 40 x 160 ft., brick, here. H. C. Hibbs, Natl. Bank Bldg., Nashville, archt.

Tenn., Nashville—School—Jan. 5, by L. Pope, dir. of administration, 3 story, brick school for feeble minded. $250,000. Marr & Holman, 701 Stahlman Bldg., archts. Noted Aug. 25.

Ky., Frankfort—Hotel—Jan. 4, by New Capitol Hotel Co., 4 story, 100 x 150 ft., brick and concrete. $250,000. F. L. Packard, New Hayden Bldg., Columbus, O., archt. Noted Oct. 13.

O., Cleveland—Apartment—Jan. 4, by S. H. White, archt., Schofield Bldg., 9 story, 80 x 350 ft., brick, steel and concrete, plain foundation, East 116th St. and Shaker Blvd., for Chester Gardens Co., c/o architect. $2,500,000. Former bids rejected. Noted Nov. 3.

O., Cleveland—Commercial—C. Krause, 2042 East 4th St., taking bids 3 story, 90x120 ft., brick, steel and concrete, plain foundation, Chester Ave. West of East 11th St. $150,000. G. G. Bohm, Williamson Bldg., archt. Noted Nov. 3.

O., Cleveland—Commercial and Apartment—F. Dolinsky, 10514 Pasedena Ave., taking bids 3 story, 57 x 83 ft., brick and steel, plain foundation, 11121 Detroit Ave. $150,000. A. F. Janowitz, Permanent Bldg., archt.

O., Cleveland—Store and Apartment—B. Koslen, 2201 East 70th St., taking bids 3 story, 91x100 ft., brick, steel and concrete, plain foundation, East 123rd St. near Durant Ave. $150,000. M. Altschuld, 5116 Woodland Ave., archt.

O., Columbus—Divinity Hall—Jan. 6, by O. Meese, pres. Capitol University, East Main St., 2 story, 210 x 300 ft., brick and concrete. $176,000. Perkins, Fellows & Hamilton, 814 Tower Court, Chicago, archts.

Ind., Battle Ground—School—Feb. 2, by C. Walters, trustee, 1 story, 133 x 169 ft., brick. $150,000. Nicol, Scholer & Hoffman, Ross Bldg., Lafayette, archts.

Ind., Indianapolis—Apartment—Jan. 8, by Pennsylvania Apartment Hotel Corp., 914 Hume-Mansur Bldg., 6 story, 52 x 178 ft., brick and concrete, North Pennsylvania St. $300,000. W. K. Eldridge, 914 Hume-Mansur Bldg., archt.

Ind., Indianapolis—Church—Columbia Pl., Christian Church receiving bids 2 story, 125 x 135 ft., brick and stone, 40th St. and Capitol Ave. $150,000. C. O. Morris, 938 West 32nd St., archt.

Ill., Chicago—Apartment—Johnston Bros., 109 North Dearborn St., receiving bids 3 story, 110 x 125 ft., rein.-con., brick and steel, 72nd and Jefferson Sts. $150,000. Owner will do carpentry work. T. M. Mitchell, 138 North La Salle St., archt.

Ill., Chicago—Apartment—J. A. Nyden, archt., 190 North State St., receiving bids 3 story, 120 x 150 ft., rein.-con., brick, steel and stone, Brompton and Pine Grove Aves., for C. R. Gleason, 111 West Washington St., $250,000.

Ill., Chicago—Apartment—J. A. Nyden, archt., 190 North State St., receiving bids 3 story, 107 x 150 ft., rein.-con., brick, steel and stone, Winthrop and Greenlake Aves., for C. R. Gleason, 111 West Washington St. $200,000.

Ill., Chicago—Apartment—Whitney & Williams, archts., 122 South Michigan Ave., receiving bids 3 story, 80 x 153 ft., rein.-con., brick, steel and stone, on Northwest Side, for R. Levine, 133 West Washington St., $150,000. Noted Dec. 15.

Ill., Chicago—Restaurant—R. G. Schmidt & Co., archts., 154 West Randolph St., receiving bids 2 story, 100 x 100 ft., rein.-con., brick and steel, Sheridan Rd. and Wilson Ave., for Garibaldi & Cuneo, 1 West South Water St. $150,000. Noted Oct. 20.

Ill., Oak Park—Apartment—Minchin & Spitz, archts., 19 West Jackson Blvd., Chicago, receiving bids, 3 story, brick and stone, 242 Maple Ave., for O. Prohaska, c/o architects. $175,000. Noted Dec. 1.

Kan., Independence — High School—Jan. 10 by N. S. Spencer & Sons, archts., 37 West VanBuren St., Chicago, 3 story, 180x235 ft., rein.-con., brick and steel, here, for Bd. Educ. C. S. Risdon, supt. $400,000. Noted Dec. 1.

Ariz., Phoenix—Depot—Santa Fe R.R. and Arizona Eastern R.R., P. E. Bldg., Los Angeles, receiving bids 2 story, 122 x [illegible] ft., steel, tile and concrete, here, $300,000. W. H. Mohr, c/o owner, archt.

Cal., Los Angeles—High School—Jan. 4, by Bd. Educ., Security Bldg., 2 story, 132 x 350 ft., rein.-con., brick and tile, Bronson Ave. near Fountain Ave. $280,000. E. H. Cline, c/o Bd. Educ., archt.

Ont., Ottawa—Collegiate—Jan. 4, by C. Bethune, secy. Ottawa Collegiate Bd., 16 Elgin St., structural steel work for institute, Carling Ave. $200,000. J. A. Ewart, Jackson Bldg., Bank St., archt.

BIDS RECEIVED

Mass., Boston—Hospital—City Hospital Dept., Harrison Ave, 2 story, 43 x 150 ft. and 43 x 107 ft. top addition, two 6 story, 28 x 43 ft. and 40 x 43 ft. annexes, rein.-con., brick and steel, plain foundations, Harrison Ave., from J. Bowen Co., 184 Dudley St., Boston, $493,000; J. Slotnik Co., 448 Bway., Chelsea, $514,780; Evatt Constr. Co., 161 Devonshire St., Boston, $515,000. Noted Dec. 15.

Mass., Brookline — High School—School Bd., 3 story, 61 x 153 ft., 85 x 89 ft. and 40 x 124 ft., brick, Tappan Ave., from J. P. Keating, Westboro, $374,000; D. G. McDonald, 164 Dudley St., Boston, $377,630; Coblo & Griffin, 46 Cornhill, Boston, $379,729. Noted Dec. 15.

Wis., Superior — Auditorium — City, 2 story, 75 x 140 ft. brick, plain foundation, 14th St. and Ogden Ave., from L. A. Hoffman, 1309 John St., $141,000; A. Wilcott & Sons, Superior, $144,600; A. Dauplaise, 5512 Baxter St., $145,072. Noted Dec. 8.

Minn., Minneapolis—Junior High School—Bd. Educ., 3 story, 218x230 ft., rein.-con., brick, tile and stone, Clinton Ave. and 38th St., from Madsen & Peterson, 646 Builders Exch. Bldg., $309,658 plus $9,020 for remodeling old building; Bracker Constr. Co., 638 Builders Exch. Bldg., $312,990 plus $6,030; Kvitrud Constr. Co., 646 Builders Exch. Bldg., $314,400. Noted Nov. 24.

Kan., Independence—High School—Bd. Educ., 3 story, brick, plain foundation, (general contract), from P. J. Morley, 1701 Main St., Kansas City, Mo., $284,340; A. S. Hecker Co., 815 Reserve Bank Bldg., Kansas City, Mo., $367,000; Murch Bros., R-W Exch. Bldg., Kansas City, Mo., $380,000. Noted Nov. 24.

CONTRACTS AWARDED

Mass., Boston — Hospital — Forest Hills Hospital, 29 Morton St., 3 story, 52 x 150 ft., brick, Morton St., to Coblo & Griffin, 46 Cornhill St., $150,000.

Mass., Lawrence — High School — Bd. Educ., 4 story, 115 x 317 ft. and 92 x 147 ft., brick and stone, to G. Dose Eng. Co., 43 West 27th St., New York, $758,700. Noted Nov. 17.

Mass., Wakefield — Library — Town, 1 story, 64 x 98 ft., brick, Main St., to J. E. Nelson Co., 7 Water St., Boston, $150,000. Noted Nov. 3.

N. Y., Brooklyn—Apartment—King-Carroll Bldg. Corp., c/o M. A. Cantor, archt. and engr., 371 Fulton St., 4 story, 100 x 100 ft., brick, steel and stone, plain foundation, Crown St. and Kingston Ave., by day labor. $150,000.

N. Y., New York—Apartment—Arrowhead Holding Co., 41 Convent Ave., 5 story, 90 x 125 ft., brick, steel and stone, plain foundation, Haven Ave., by day labor. $500,000. G. F. Pelham, 200 West 72nd St., archt. and engr.

N. Y., New York—Apartment—F. M. and S. Corp., c/o G. F. Pelham, archt. and engr., 200 West 72nd St., 5 story, brick, steel and stone, plain foundation, 212th St., by day labor. $200,000.

Pa., McKeesport—Y. M. C. A., 2 West 45th St., New York, 4 story, 115 x 170 ft. brick, steel and stone, plain foundation, to Schutz, Schreiner & Clyde Co., May Bldg., Pittsburgh, $535,000.

Pa., Philadelphia — Theatre — Willard Theatre Co., c/o C. E. Oelschlager, archt., 1615 Walnut St., 1 story, 65 x 125 ft. brick and steel, plain foundation, 40th and Market Sts., to W. S. Gore, 6 North 41st St., $150,000. Noted Dec. 22.

D. C., Wash.—Bank and Office—C. Tompkins, 1612 Park Rd., will build concrete bank and office building, 14th St. and

Buildings (Continued)

Park Rd., N.W., by day labor. $400,000. G. W. Ray, 1147 Conn. Ave., N.W., archt.

Va., Richmond—High School—Bd. Educ., 4 story concrete and brick, Marshall St. between 8th and 9th to A. M. Walkup & Co., 746 North 17th St. $341,000.

W. Va., Logan—Hospital—H. D. Hatfield, R. & P. Bldg., and others, 5 story, 40 x 110 ft., brick and stone, to V. E. Taylor, 547 Adams Ave., Hungtington, $150,000.

N. C., Winston-Salem—High School—Bd. Trustees constructing Richard J. Reynolds Memorial High School and power house in connection with same, to Dupont Eng. Co., Dupont Bldg., Wilmington, Del., $388,700 and $28,250 respectively; heating of school to Grinnell Co., Charlotte, $73,790.

Fla., Tallahassee—Capitol—Bd. State Institutions two 3 story wings, rein.-con., brick, marble and steel to Parker & Yeager, Tallahassee, $153,000. Noted Nov. 17.

O., Castalia—School—Bd. Educ. 2 story, 103 x 106 ft., brick, steel and concrete, plain foundation, to Hossler Bros., Tiffin, $150,000.

O., Cleveland—Apartment Hotel—L. W. Kelly, Hippodrome Bldg., 12 story, 94x190 ft., brick, steel and concrete, plain foundation, Euclid Ave. and East 107th St., to J. Gill & Sons, Citizens Bldg., $1,500,000. Noted Oct. 27.

O., Delaware—Dormitories—Bd. Trustees Ohio Wesleyan University, building Austin Hall, brick and stone, on site of Monett Annex, also Watson Memorial, Central Ave. and Elizabeth St., to H. K. Ferguson Co., 6523 Euclid Ave., Cleveland. $200,000 and $300,000 respectively. Noted Dec. 22.

O., North Robinson—High and Grade School—Bd. Educ., 2 story, 100 x 124 ft., brick, steel and concrete, plain foundation, to Miller Bros., Bucyrus, $200,000.

Ind., Indianapolis — Church — Tabernacle Presbyterian Church, 2 story, 189 x 305 ft., concrete, stone and steel, 34th St. and Central Ave. to E. Wehr Constr. Co., East Liberty Sta., Pittsburgh, Pa., $300,000.

Ind., Indianapolis — Theatre—Stegemeier Bros., Occidental Bldg., 2 story, 44 x 120 ft., concrete, brick and terra cotta, 17 North Illinois St., to Bedford Stone & Constr. Co., Fletcher Trust Bldg., $175,000. Noted. Dec. 8.

Ind., Terre Haute—School—Bd. Educ. 2 story, 65 x 88 ft. brick and stone, to W. Caton, 900 South 6th St., $150,000. Noted May 12.

Ill., Chicago—Office, etc.—J. H. Taylor & Co., 101 4th Ave., New York, 10 story, 100 x 110 ft., rein.-con., brick and steel office and factory, to G. Thompson & Son, 30 North LaSalle St., $550,000. Noted Nov. 10.

Wis., Genoa Junction—Lodge—E. G. Shinner, c/o C. B. Falkner, archt., 140 South Dearborn St., Chicago, having plans prepared 1 and 2 story, 100 x 100 ft. lodge building, 1 story, 85 x 85 ft. dining hall, 1 story, 100 x 100 ft. garage, 50 x 50 ft. power house, boat house, polo grounds, golf course, etc., on Tombeau Lake near Lake Benedict and Lake Powers, for Nippersink Lodge. $250,000. Work will be done by day labor.

Minn., Minneapolis — Apartments — Fleisher Constr. Co., 608 Builders Exch., fifteen 3 story, 40x110 ft., brick, tile and stone. $50,000 to $60,000 each. Owner builds by day labor. A. Rose, 500 Builders Exch. Bldg., archt.

Tex., Dallas—Office—Cary-Schneider Investment Co., Gt. Sou. Life Bldg., 18 story, 112 x 112 ft., rein.-con. and brick, Masten and Pacific Sts., to G. W. Hewitt, Slaughter Bldg., $1,000,000. Noted Dec. 8.

Tex., Dallas—Y. W. C. A., 4 story, 90 x 115 ft., rein.-con., administration building, Jackson and Prather Sts., to Watson Co., 1927 South Akard St., $375,000. Noted June 16.

Okla., Duncan—Hotel—Modern Hotel Co., c/o W. C. MacCready, pres. Ballinger Bldg., St. Joseph, Mo., 6 story, 140 x 140 ft., concrete, brick and steel, here, to E. H. Lawhon, 905 Edmond St., St. Joseph, Mo., $500,000.

Cal., Los Angeles — Office — Automobile Club of Southern California, c/o Hunt & Burns, archts., 701 Laughlin Bldg., 3 story, 207 x 267 ft., rein.-con. and stone, 26th and Figueroa Sts., to C. J. Rubach Co., Merchants Natl. Bank Bldg., $500,000.

Cal., Santa Barbara — Hospital — St. Francis Hospital, 3 story, 40 x 190 ft., and 4 story, 40 x 90 ft., rein.-con., to J. Y. Parker, 610 Live Oak, $215,000. Noted Mar. 17.

Federal Government Work

PROPOSED WORK

D. C., Wash.—School—War Dept., c/o Quartermaster, Constr. Div., plans 3 story, rein.-con. and brick, army medical school, at Walter Reed Hospital.

BIDS DESIRED

D. C., Bellevue—Power Plant equipment and Installation—Spec. 4497—Bureau Yards & Docks, Navy Dept., Wash., receiving bids four 150 hp. return tubular boilers and mechanical stokers, boiler and fire pumps, motor driven air compressor or brick setting and superheaters for 4 boilers, crane, 2 turbine driven forced draft fans, steel smoke flue, feed water heater, heating system return tank, condenser equipment, air condenser and circulating pumps, service water heater traveling screen, structural supports, concrete foundations and pipes, valves and fittings. Noted Dec. 1.

S. C., Charleston—Foam Fire Protection System—Spec. 4558—Jan. 4, (change of date) by Bureau Yards & Docks, Navy Dept., Wash., D. C., foam fire protection system, at Navy Yard, here. Noted Dec. 8.

Ga., Augusta—Hospital—Jan. 18, Treas. Dept., Wash., D. C., construction, incl. mechanical equipment of U. S. Pub. Health Serv. Hospital, here; adv. this issue. Noted Dec. 15.

La., New Orleans—Ice Making and Refrigerating Plant—Jan. 16, Treas. Dept., Wash., D. C., ice making and refrigerating plant, at U. S. Quarantine Station, here. J. A. Wetmore, acting superv. archt.

Mo., Kansas City—Pumping Plant, etc.—Jan. 12, Treas. Dept., Wash., D. C., pumping plant, hydraulic freight elevator, etc., in U. S. Post Office and Court House, here. J. A. Wetmore, acting superv. archt.

Cal., San Diego—Post Exchange and Dispensary—Spec. 4527—Jan. 18, Bureau Yards & Docks, Navy Dept., Wash., D. C., for post exchange and dispensary buildings, at Naval Base, here; adv. this issue. Noted Oct. 6.

CONTRACTS AWARDED

Va., Yorktown—Water Supply System—Spec. 4514—Bureau Yards & Docks, Navy Dept., Wash., D. C., water supply system at Naval Fuel Depot, here, to Newport Contg. and Eng. Co., Law Bldg., Newport News, $18,623 (240 days). Noted Dec. 22.

N. C., Oteen—Changes to Services—Treas. Dept., Wash., D. C., changes to services, etc., in U. S. Pub. Health Serv. Hospital, here, to Ransom & Anderson Co., Inc., 136 Liberty St., New York, $19,890 (90 days). Noted Dec. 15.

Ga., Savannah — Quarters—Spec. 4517—Bureau Yards & Docks, Navy Dept., Wash., D. C., quarters at radio station, here, to Universal Constr. Co., 316 West Dewald St., Fort Wayne, Ind., $2,845 (120 days). Noted Dec. 22.

Wis., Milwaukee — Hospital—Bd. Mgrs. Natl. Home for Disabled Volunteer Soldiers, Dayton, O., 2 story, rein.-con. and brick, at Soldiers Home, here, to H. Schmitt & Son, 430 Farwell Ave., 1,094,000. Noted Dec. 1.

H. T., Pearl Harbor—Storehouse—Spec. 4504—Bureau Yards & Docks, Navy Dept., Wash., D. C., 1 story storehouse, at Naval Operating Base, here, to W. F. Martens, 53 Franklin St., Rochester, N. Y., $196,775 (263 days). Noted Dec. 15.

Miscellaneous

PROPOSED WORK

Stone Crusher — Medford, Wis. — Soon takes bids stone crusher. H. Mauer, clk.

Stadium — Northfield, Minn. — Carleton College plans concrete stadium, 25,000 seating capacity, and improvements to athletic field. 150,000. F. J. Fairbank, treas.

Electric Lighting and Power System—Cayuga, Ont.—Plans electric lighting and power distribution system. R. S. Colter, member of Council.

Electric Lighting and Power System—Hensall, Ont.—Usborne Twp. plans electric lighting and power distribution system. $30,000. Address H. Strang, member of Council.

Electrification of Railway—North Bay, Ont—Temiskaming & Northern Ontario Ry., plans to investigate complete electrification of railway, incl. new line from Cochrane to New Post. About 500,000 electrical hp. can be developed on Abitibi River, as well as several waterfalls on Ottawa, Montreal and Sturgeon water sheds. S. B. Clement, North Bay, ch. engr.

Asphalt Plant and Street Flusher—Windsor, Ont.—Election Jan. 2, to vote on $25,000 bonds for asphalt plant and $10,000 for street flusher. A. Brian, city engr.

BIDS DESIRED

Station Finish—New York, N. Y.—Jan. 18, by Transit Comn., 49 Lafayette St., for completion of construction and station finish for 2 stations on Bway.-4th Ave. Rapid Transit R.R. G. McAneny, chn.

Shafts and Tunnel—Jersey City, N. J.—Feb. 7, by New York State Bridge & Tunnel Comn., and New Jersey Interstate Bridge & Tunnel Comn., Room 617, Hall of Records, New York, land shafts and vehicular tunnel under Hudson River, here. Noted Nov. 24.

Jaw Crushers, Conveyors, etc.—Florence, Ala.—Muscle Shoals, Rock Asphalt Co., 103 Court St., is in the market for 4 jaw crushers, 400 ton daily capacity, 4 conveyors, 4 steel rollers, 48 in. diameter about 30 in. long for pulverizing asphalt, air compressors, jack hammer drills, and ½ ton revolving shovel dipper, caterpillar preferred. A. J. Bright, Nashville, Tenn., ch. engr.

Jaw Crusher—Blanchester, O. — C. A. Magee in market for one 9 x 16 in. jaw crusher with elevator and screen.

Road Machinery—Lancaster, Wis.—Jan. 3, by H. Mink, comr. Grant Co., 12 patrol graders, 1 scarifier, 12 road drags, 4 slip scrapers, 4 plows and one hundred 6 ft. grader blades.

Street Signs—Minneapolis, Minn.—Jan. 3, by K. E. Alexander, city purch. agt., 1,000 metal street signs.

Terminal Substructure — San Francisco, Cal.—Jan. 12, by State Bd. Harbor Comrs., Ferry Bldg., sub-structure for China Basin Terminal, incl. 1,000-ft. seawall, foundations and ground floor of building, 122 x 812 ft., filling and 6,000 green piles. $800,000. F. G. White, ch. engr.

Asphalt Heating Plant—Santa Rosa, Cal.—Jan. 11, by Bd. Supervs. Sonoma Co. asphalt heating plant. $4,000. R. P. Smith, co. engr.

BIDS RECEIVED

Cranes — Stapleton, S. I., N. Y.—Dept. Docks, Pier "A" foot of Battery Pl., New York, opened bids Dec. 21, installing and putting into successful operation cranes on Piers 12 and 13, here. Contr. 1686, from Wellman-Seaver-Morgan Corp., Real Estate Trust Bldg., Cleveland, O., proposal (a) $324,500, (b) $314,450, (c) $304,400, (d) $294,350, (e) $276,268; Heyl & Patterson, Inc., 90 West St., New York, (a) $344,921, (b) $331,198, (c) $317,234, (d) $302,540, (e) $280,228; McMyler Interstate Co, 50 Church St., New York, (a) $375,774, (b) $362,560, (c) $349,350, (d) $334,218, (e) $517,934; Niles Bement Pond Co., 111 Bway., New York, (e) $345,950. Noted. Dec. 15.

CONTRACTS AWARDED

Steam Asphalt Roller—New York, N. Y.—H. Bruckner, pres. Bronx Boro, Municipal Bldg., furnishing and delivering one 5 ton steam asphalt roller, to Buffalo-Springfield Roller Co., Kenton and Oak Sts., Springfield, Ohio., $2,390. Noted Dec. 8.

Elimination of Grade Crossings, etc.—North Tonawanda, N. Y.—New York Central R.R., Grand Central Terminal, New York, for elimination of grade crossings, raising of track, etc., subways, bridges and viaducts, here, to Walsh Constr. Co., Syracuse Herald Bldg., Syracuse, $500,000.

Swimming Pool, etc.—Nashville, Tenn.—Cascade Corp., concrete swimming pool, bath houses, etc., to O. F. Whittle, 2015 Linden Ave., $75,000. Noted Dec. 15.

Electric Lighting and Power System—Blenheif, Ont.—Harwich Twp., electric lighting and power distribution system. $40,000. Work will be done by Hydro Power Comn. under direction of J. N. Wilson, engr., 190 University Ave., Toronto.

Electric Lighting and Power System—Charing Cross, Ont.—Raleigh Twp., electric lighting and power distribution lines to Kent Centre, Louisville and Tupperville. $60,000. Work will be done by Hydro Power Comn. under direction of E. R. Lawlor, engr., 190 University Ave., Toronto.

Electric Lighting and Power System—Ridgetown, Ont.—Howard Twp. electric lighting and power distribution system. Work will be done by Hydro Power Comn. under direction of A. Beck, 169 Albert St., London.

OFFICIAL PROPOSALS

Bids: Jan. 10.

Steel or Concrete Bridge Construction

Lake Charles, La.

Sealed proposals for constructing the Moss Bluff Highway Bridge across the Calcasieu River, near Lake Charles, Louisiana, and addressed to the Hon. W. J. Prater, President of Police Jury, Calcasieu Parish, Louisiana, will be received at the office of the Parish Clerk, Lake Charles, Louisiana, until 12 o'clock M. January 10th, 1922.

The work comprises:

The construction of a steel highway bridge across the Calcasieu River and a reinforced concrete or creosoted timber approach trestle across the adjacent marsh, together with a steel lift span with 94 ft. clear opening. The bridge will be built on either of two alternates for various combinations of the different types of construction and for each alternate the construction of the substructure a steel superstructure may be bid on separately, as distinct contracts. Contractors may bid on any or all alternate types of design or upon any combination of contracts. Both furnishing and erection of structural steel trusses and lift span are in all cases included in the same contract. Some of the river piers will be carried over sixty feet below ordinary river level. The entire structure will be about One Thousand Four Hundred Fifty (1,450) feet in length and either 18 or 20 ft. in clear width. Instructions and proposal blanks may be obtained from and detailed plans and specifications are on file with the Parish Clerk at Lake Charles, Louisiana, and at the office of The Terrell Bartlett Engineers, Calcasieu Building, San Antonio, Texas. Each proposal must be accompanied by a certified or cashiers check in the sum of not less than 5% of the amount bid.

Bidders must fulfill conditions provided in the "Instructions to Bidders."

The Parish reserves the right to reject any or all bids.

W. J. PRATER,
President Calcasieu Police Jury,
Lake Charles, Louisiana.

Bids: Jan. 31.

Filter Plant and Reservoir

Atlanta, Ga.

Sealed proposals for furnishing material and constructing a Filter Plant and a Clear Water Reservoir for the City of Atlanta, Georgia, will be received by the Purchasing Agent of the City of Atlanta at the City Hall until 2:30 P. M. on the 31st day of January, 1922.

The work will consist of a Reinforced Concrete Filter Plant, of 7 units of 3 million gallons daily, capacity each, with Laboratory attached. A 10 million gallon Reinforced Concrete, covered Reservoir, a Reinforced Concrete Wash Water Tank, together with Reinforced Concrete Conduits, cast iron pipe lines with miscellaneous structures and appurtenances and connections to the present system.

Each proposal must be accompanied by a certified check payable to the City of Atlanta, in an amount equal to 5% of the bid, as a guarantee that the contract will be entered into if awarded. A Bond of One Hundred (100%) per cent of the contract price will be required. Payments will be made in cash on monthly estimates.

Plans and specifications are on file at the office of the General Manager of the Atlanta Water Works, City Hall, Atlanta. P. H. Norcross, Consulting Engineer, 1405 Candler Building, Atlanta, and with the Engineering News-Record, New York City.

Bidders may obtain copies of the specifications from the Purchasing Agent by enclosing check for twenty-five dollars ($25.00) payable to the City of Atlanta. and to be held by him until return of the specifications, in good condition. Blue prints may be had at the cost of printing. The City reserves the right to reject any and all bids.

Purchasing Agent,
City of Atlanta. Georgia.

These Advertisements

are official notices that bids are wanted from other than local bidders.

Maximum competition is desired. and this is assured through Engineering News-Record's large NATIONAL circulation, reaching almost every contractor, dealer, and manufacturer in the country interested in bidding on public work contracts. It is the DOMINANT MEDIUM for advertising contracts for work, material, and supplies for towns, cities, counties, state and government departments, and private organizations.

Official Proposals reaching our New York Office by 10 A. M., Tuesday can usually be printed in the issue out Thursday.

Rate: 40 cents a line an insertion.

Bids: Jan. 13.

Sewage Disposal Plant

Milwaukee, Wis.

Sealed proposals for the construction of a Sewage Disposal Plant will be received by the Sewerage Commission of said city at its offices in the City Hall until 1:30 o'clock P.M. of the 13th day of January, 1922, at which time and place during the session of said Commission, they will be publicly opened and read.

The work to be done embraces the construction of the main portion of the Sewage Disposal Plant, consisting of aeration and sedimentation tanks, galleries, conduits, superstructures, piping and all appurtenances connected therewith. The approximate yardage of concrete is 61,500, with 5,000 tons of reinforcing steel to be placed and a large amount of miscellaneous piping.

The time allowed for the completion of the contract shall be eighteen (18) months from the date of the notice of the engineer to begin the work.

The liquidated damages for not completing the work within the time specified shall be One Hundred ($100.00) Dollars for each day in excess thereof.

Each proposal submitted must be accompanied by a cash deposit or certified check drawn to the order of the Sewerage Commission of the City of Milwaukee, to the amount of Twenty-five Thousand ($25,000.00) Dollars.

Specifications and blank forms of proposals can be obtained and detail plans examined at the offices of the Sewerage Commission. A full set of plans and a copy of the specifications will be sent to any contractor upon the receipt of Twenty-five ($25.00) Dollars, which amount will be refunded upon the return of the plans in good condition, provided such return is made on or before the expiration of 30 days after the date of receiving bids.

The Sewerage Commission reserves the right to reject any and all proposals submitted.

JOHN H. FOWLES,
Secretary.

Countersigned:
LOUIS M. KOTECKI,
City Comptroller.

Bids: Jan. 31.

Paving

Lake Wales, Fla.

LAKE WALES, FLORIDA: Will let about 175,000 square yards street paving on January 31st at 2 o'clock P. M. Plans and specifications on file on and after January 10th at office of Town Clerk M. M. Ebert; also offices of J. W. Turner, Engineer, Lakeland, Fla.

Bids: Jan. 4.

East Side Storm Sewer

Dearborn, Mich.

Sealed bids will be received at the office of the village clerk, Dearborn, Michigan up to 8 p. m. of the 4th day of January, 1922, for the furnishing of all materials and labor necessary to construct the East Side Storm Water Sewer. Sewer to be built in tunnel. The following are the approximate quantities:

707 ft. of 4 ft. 9 in. sewer.
339 ft. of 4 ft. 6 in. sewer
815 ft of 3 ft. 9 in. sewer
487 ft. of 3 ft. 6 in. sewer
7 manholes
One concrete abutment and apron.

Plans and specifications are on file at the office of the village clerk and copies may be secured from the office of C. W. Hubbell, Consulting Engineer, 2348 Penobscot Bldg., Detroit, Michigan. A deposit of $10.00 will be required for a set which will be refunded upon their return in good order on or before January 14, 1922.

A certified check made payable to the Village of Dearborn for the sum of $2,500.00 must accompany each bid. In case of failure or neglect to enter into contract and furnish the required bonds, the certified check shall be forfeited to the Village of Dearborn as liquidated damages.

No proposals will be received unless made on the blanks furnished by the consulting engineer and delivered to the village clerk on or before 8 P. M., January 4, 1922.

The village reserves the right to reject any or all bids. By order of the village commission.

FRED C. REAMER,
Village Clerk.

Bids: Jan. 11.

Construction, etc.

Middletown, N. Y.

NOTICE TO CONTRACTORS: Sealed proposals for construction, heating and electric work — storehouse at the Middletown State Homeopathic Hospital, Middletown, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 3 o'clock P.M., on Wednesday, January 11, 1922, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed and shall be accompanied by a certified check in the sum of five per cent (5%) of the amount of the proposal. The contractors to whom the awards are made will be required to furnish surety company bond in the sum of fifty per cent (50%) of the amount of the contract within thirty (30) days after official notice of award of contract and in accordance with the terms of Specifications Nos. 3817, 3818 and 3819. The right is reserved to reject any or all bids. Drawings and specifications may be examined and inspected at the Middletown State Homeopathic Hospital, Middletown, N. Y.; at the New York Office of the Department of Architecture, Room 618 Hall of Records Building and at the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y. upon reasonable notice to and in discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

L. M. FARRINGTON,
Secretary, State Hospital Commission.
Dated: December 13, 1921.

Bids: Jan. 4.

Dredging

Belzoni, Miss

Sealed bids will be received until one o'clock P. M., Wednesday, January 4th, 1922, by the Commissioners of the Belzoni Drainage District at their offices in Belzoni, Mississippi. for the redredging and cleaning out of about 100 miles of dredged ditches.

The right is reserved to reject any and all bids.

Further information upon request.

S. CASTLEMAN, President
C. E. MILLER, Engineer.

Volume 87 New York, December 29, 1921 Number 26

Engineering News-Record

A CONSOLIDATION OF ENGINEERING NEWS AND ENGINEERING RECORD,
WITH WHICH IS INCORPORATED THE CONTRACTOR

E. J. MEHREN, *Editor*

Variety of Movements Occur in Concrete Test Highway 1048

CRACKS IN PAVEMENT COME ON CRESTS of longitudinal waves. Edges curve up in daytime and down at night. Test continuing.
Egineering News-Record, December 29, 1921. 7 cols. Ill.

Keeping Track of Chlorine Cylinders 1051

Engineering News-Record, December, 29, 1921. 1 col. Ill.

International Division of St. Mary and Milk Rivers 1052

ORDER OF JOINT COMMISSION allotting waters for irrigation and power to United States and Canada—with comment.
Engineering News-Record, December 29, 1921. 3½ cols.

Kings River Water-Right Litigation Halted by Engineer's Plan 1053

Engineering News-Record, December 29, 1921. ¾ cols.

London's Rapid Transit Mail Distribution System 1054

CONSTRUCTION NOW GOING ON. Automatic electric trains to be transporting units. Twelve post offices to be linked.
Engineering News-Record, December 29, 1921. 1¾ cols. Ill.

Sunken Dredge Raised by Jacking from Dry Dock Pontoons 1056

BY JAMES H. POLHEMUS.

FOUR PONTOONS lying on the quarters swing hull in rope slings. Steel truss stiffens dredge against damage.
Engineering News-Record, December 29, 1921. 5 cols. Ill.

Erection of Steel Building and 150-Ft. Truss 1058

BY W. J. HOWARD.

SPECIAL METHODS for huge truss. Derrick on first floor with long boom places framing for six stories and roof.
Engineering News-Record, December 29, 1921. 4 cols. Ill.

Loss of Head as a Criterion for Washing Filters 1060

BY JAMES W. ARMSTRONG.

ARBITRARY TIME INTERVAL between washes replaced by a rational standard obtained by a new turbidity detector.
Engineering News-Record, December. 29, 1921. 1½ cols. Ill.

Concrete Armored Piles in Wharf at Port Orford, Ore. 1061

METAL PIPE DRIVEN to serve as forms. Brackets in piles insure desired thickness of concrete at ground line.
Engineering News-Record, December 29, 1921. 2 cols. Ill.

Utilizing Gas from Sewage Sludge as Motive Power 1062

BY JOHN D. WATSON.
Engineering News-Record, December 29, 1921. 5 cols.

Rectangular Enginehouse with Interior Turntable 1064

TWO CANADIAN RAILWAYS adopt novel plan to reduce winter trouble at terminal by putting turntable under cover.
Engineering News-Record, December 29, 1921. 4 cols.

Water Works Shares in Exhibit of St. Louis City Activities 1066

BY T. CHIVVIS.
Engineering News Record, December 29, 1921. 1 col. Ill.

The Probable Frequency of Given Rates of Rainfall 1067

BY ADOLPH F. MEYER.

AVERAGE-RATE METHOD more economical for design of public works than uniform. Intensity method. Data reviewed.

Breakwaters of Three Types in One Lake Harbor 1069

RUBBLE MOUNDS, concrete caissons and rock filled pile cribs for U. S. Naval Station at Great Lakes, Ill.
Engineering News-Record, December 29, 1921. 4½ cols. Ill.

Editorials 1045

Letters to the Editor 1072

Hints for the Contractor 1075

News of the Week 1076

Weekly Construction Market 1084

Construction News 281

Directory of Consulting Engineers 118
What and Where to Buy 122

Searchlight Section 58
Index to Advertisers 128

McGRAW-HILL COMPANY, INC., Tenth Ave. at 36th St., NEW YORK

JAMES H. McGRAW, President
ARTHUR J. BALDWIN, Vice-President
J. MALCOLM MUIR, Vice-President
EDWARD D. CONKLIN, Vice-President
JAMES H. McGRAW, JR., Secy. and Treasurer

WASHINGTON, D. C., Colorado Building
CHICAGO, Old Colony Building
PHILADELPHIA, Real Estate Trust Building
CLEVELAND, Leader-News Building
ST. LOUIS, 713 Star Building
SAN FRANCISCO, Rialto Building
LONDON, E. C., 6 Bouverie St.

Cable Address "Machinist, N. Y."

Publishers also of
Journal of Electricity and Western Industry
Electrical World
American Machinist
Power
Engineering and Mining Journal
Electrical Merchandising
Coal Age
Chemical and Metallurgical Engineering
Electric Railway Journal
Ingeniería Internacional

The annual subscription is $5 to any part of the United States, Canada, Mexico, Alaska, Hawaii, the Philippines, Porto Rico, Canal Zone, Cuba, Honduras, Nicaragua, Peru, Colombia, Bolivia, Dominican Republic, Salvador and Shanghai, China. Extra foreign postage, $4 (total $9, or 38 shillings). Single copy, 25 cents.

Change of Address—When change of address is ordered the new and the old address must be given. Notice must be received at least ten days before the change takes place.

Copyright, 1921 by McGraw-Hill Company, Inc.

Published Weekly. Entered as second-class matter Apr. 11, 1917, at the Post Office at New York, under the Act of Mar. 3, 1879.

Member Audit Bureau of Circulations. Member Associated Business Papers, Inc.

CIRCULATION OF THIS ISSUE, 29,647 COPIES

Bent in Our Warehouse —for Less Money

Steel bent to specifications or fabricated into units ready to place in the forms—and when you want it.

That's Havemeyer Service! It saves time and money!

The chain of Havemeyer Warehouses makes it possible to serve every customer promptly—no matter where he may need reinforcing steel.

A complete line of steel building materials always in stock including Havemeyer Bars, Wall-Tys, Soffit Clips, Stair Tread, Form Clamps, Curb-Bars, Metal Lath, Channels, Corner Bead, Expanded Metal Lath, Wire Mesh, Bar-Tys, Ty-Chairs, Bar-Spacers, etc.

What do you need now? Catalogs on request.

Concrete Steel Company

42 Broadway, New York

Philadelphia	Cincinnati	St. Louis	Detroit
Kansas City	Des Moines	Syracuse	Chicago
Pittsburgh	Birmingham	Hartford	Boston
Washington	Baltimore	Norfolk	Omaha
	Cleveland	St. Paul	

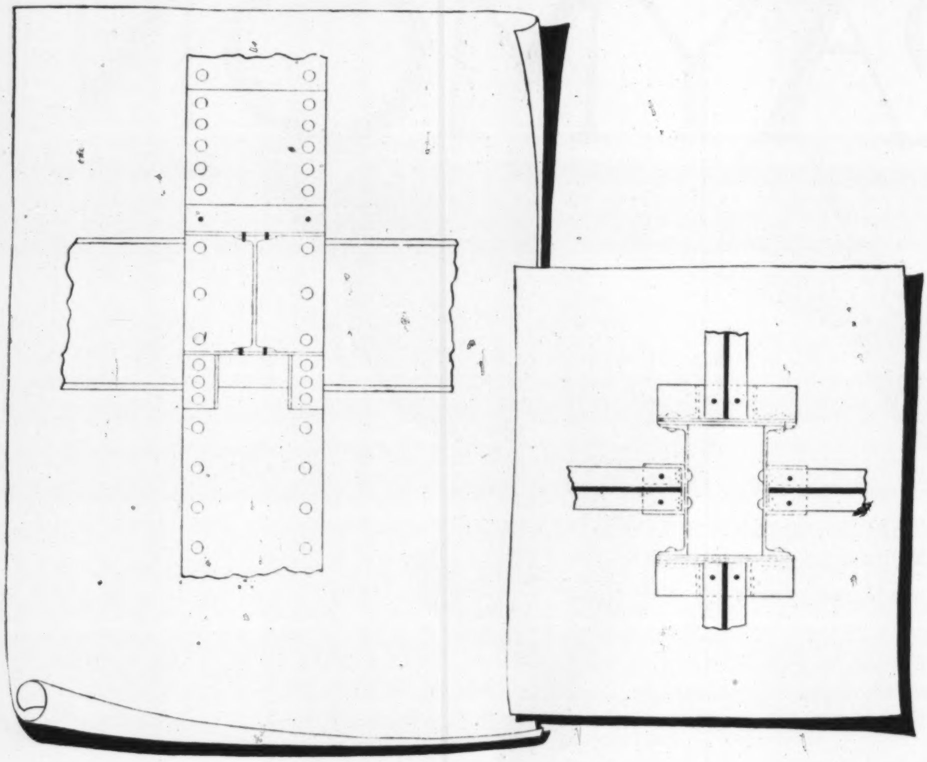
Canada: Drummond & Reeves, Ltd., 43 Jarvis St., Toronto

HAVEMEYER SERVICE

RAYMOND

—illustrating all it's necessary to know about Concrete Piles—the shell is left in the ground—

RAYMOND CONCRETE PILE COMPANY
New York: 140 Cedar Street
Chicago: 111 W. Monroe Street
RAYMOND CONCRETE PILE CO., Ltd., Montreal, Quebec
Branch Offices in all Principal Cities
"A FORM FOR EVERY PILE—A PILE FOR EVERY PURPOSE"



This part of the structure requires extra care in painting

A good shop coat of Red-Lead—that goes without saying. On erection, two more coats of Red-Lead should go on, and it can be obtained and applied in various dark colors, such as brown or green or black, to facilitate inspection and to suit color ideas.

Framing connections call for the greatest care—joined surfaces, rivet heads, etc., make hard painting with a big chance of poor covering—and they should always get an extra coat of Red-Lead.

A common sight is that of a building skeleton or a bridge under erection with fresh bright paint marking every connection of beam and column.

Dutch Boy Red-Lead can be relied on to stick tight to clean metal surfaces and to keep out moisture and deleterious gases, thus protecting the metal from rust and corrosion.

Tests of all kinds have proved that Red-Lead excels every other known material for the protection of structural metal. Dutch Boy Red-Lead is pure Red-Lead in its most highly oxidized form. It is put up both as a convenient paste and a ready-to-use liquid Red-Lead.

For all metal surfaces, specify Dutch Boy Red-Lead.

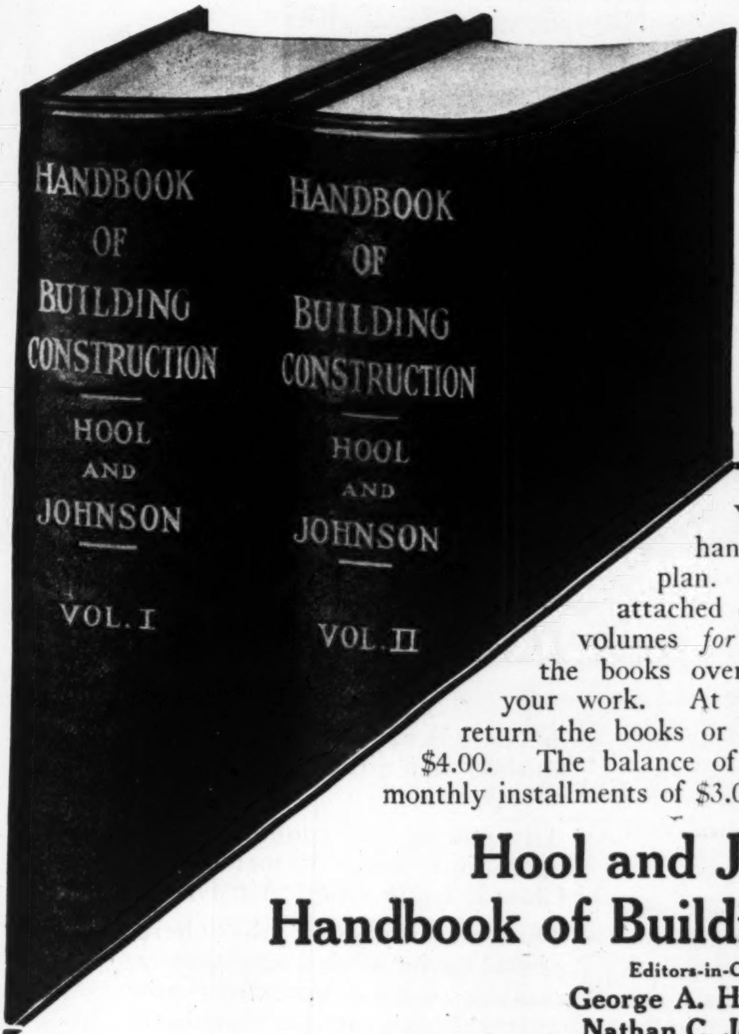
Write for Painting Helps No. 5

"Save the surface and you save all"—*Paint & Varnish*

NATIONAL LEAD COMPANY

New York **Boston** **Cincinnati** **San Francisco**
Cleveland **Buffalo** **Chicago** **St. Louis**
JOHN T. LEWIS & BROS. CO., Philadelphia **NATIONAL LEAD & OIL CO., Pittsburgh**

Dutch Boy Red-Lead


HANDBOOK OF BUILDING CONSTRUCTION
HOOL AND JOHNSON
VOL. I
HANDBOOK OF BUILDING CONSTRUCTION
HOOL AND JOHNSON
VOL. II

The Great Handbook on Building Construction

pay for the books as you use them

You can now purchase this great handbook on the deferred payment plan. If you will fill in and mail the attached coupon we will forward the two volumes *for ten days' examination.* Look the books over thoroughly—test them out in your work. At the end of ten days you may return the books or send us your first remittance of $4.00. The balance of $6.00 you may send us in two monthly installments of $3.00. See the coupon for details.

Hool and Johnson's Handbook of Building Construction

Editors-in-Chief

George A. Hool and
Nathan C. Johnson

Assisted by 46 Specialists. Two volumes (not sold separately). 1474 pages 6 x 9, flexible, fully illustrated, $10.00 per set.

Nearly fifty specialists collaborated to produce this great two-volume handbook on modern building design and construction. The records, the experience, the methods of big engineering companies and leading construction engineers have been incorporated in it. It is a digest of the best approved practice of modern building construction.

It offers architects, construction engineers, contractors and builders a body of information on practical construction that has never before been even approximated. Principles, methods, costs, tables and reference data are all spread out before you in these two handy books for quick reference and constant use.

A work without a parallel—a great achievement of technical authorship.

These are the chapter headings:

1—Elements of Structural Theory.
2—Designing and Detailing
3—Structural Data
4—General Designing Data
5—Construction Methods
6—Construction Equipment
7—Building Materials
8—Estimating Steel Buildings
9—Estimating Concrete Buildings
10—Architectural Practice
11—Contracts
12—Specifications
13—Heating, Ventilation and Power
14—Water Supply
15—Sewage Disposal
16—Waterless Toilet Conveniences
17—Plumbing and Drainage
18—Electrical Equipment
19—Electric Lighting
20-21—Gas Lighting and Fitting
22—Elevators
23—Refrigeration
24—Communicating Systems
25—Lightning Protection
26—Vacuum Cleaning Equipment

Sent on Approval
No Money Down
Only $4.00
in ten days
and $3.00 monthly for
two months

FREE EXAMINATION COUPON

McGraw-Hill
Book Co., Inc.,
370 Seventh Ave.,
New York.

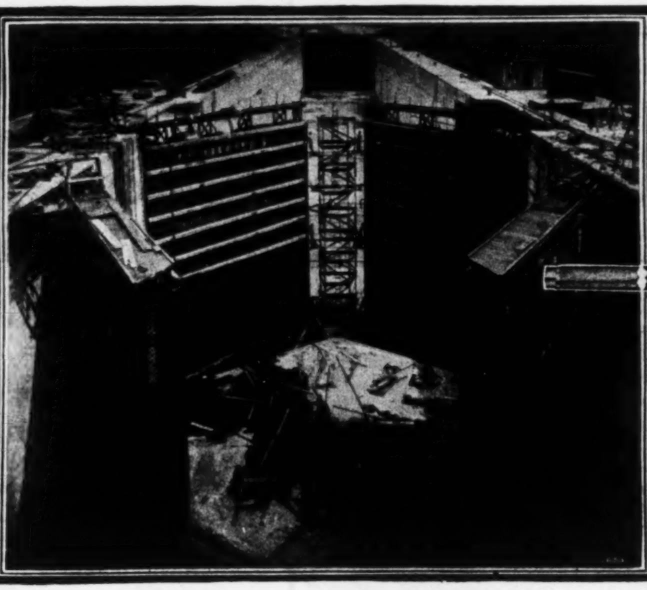
Send me on 10 days' approval Hool & Johnson's HANDBOOK OF BUILDING CONSTRUCTION (in 2 Volumes, $10.00). I agree to return the books, postpaid, in 10 days or to remit $4.00 in 10 days and $3.00 monthly for 2 months.

Name ....
Address ....
(Print name and address)
Official Position ....
Name of Company ....
Subs. Eng. News-Record .... Mem. Amer. Soc. C. E.? ....

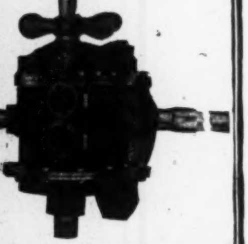
(Books sent on approval to retail purchasers in the United States and Canada only)

N-R 12-29-21

Boyer Riveting Hammer, No. 50, with inverted handle. Used in the exceedingly heavy work of all compartment riveting.



Type "E" Little Giant Air Drill. Used exclusively for reaming and countersinking.



General Illustration shows the Industrial Canal, New Orleans, La., construction of which was supervised by Mr. A. Toohey for McClintic-Marshall Company, contractors. 2700 tons of steel and 300,000 7-8-inch rivets were used in its fabrication.

Boyers and Little Giants do Big Jobs Well

THIS canal, requiring 300,000 ⅞-inch rivets in its fabrication, was built with the aid of Boyer Riveting Hammers and Little Giant Air Drills.

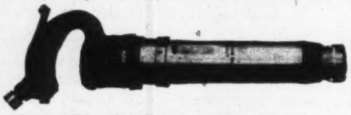
Two types of Boyer Hammers were used—the No. 80 and the No. 50. The No. 80 was used on general riveting operations. The No. 50, with inverted handle, drove all inside compartment rivets.

A number of rivets were countersunk and ground to a finish. Each Boyer-driven rivet was so perfectly finished that little grinding was necessary.

All reaming and countersinking operations were performed by Class E Little Giant Air Drills.

Thus, on this difficult job—where *perfect rivets, air* and *maintenance economy*, were a necessity—the exacting requirements were fully met.

What are *your* needs? Name them—there's a Boyer or Little Giant to fulfill them. Ask for bulletins.



Boyer Riveting Hammer, No. 80, extensively employed in building this canal.

Chicago Pneumatic Tool Company

Chicago Pneumatic Building · 6 East 44th Street · New York

*Sales and *Service Branches all over the World*

*Birmingham
*Boston
*Buffalo
*Chicago
*Cincinnati
*Cleveland
*Detroit
El Paso
Erie
Franklin
Houston
Joplin
*Los Angeles
*Minneapolis
*New Orleans
*New York
*Philadelphia
*Pittsburgh
Richmond
Salt Lake City
*San Francisco
*Seattle
*St. Louis
Basle
*Berlin
Bombay
Brussels
Buenos Aires
Christiania
Copenhagen
*Fraserburgh
Havana
Helsingfors
Honolulu
Johannesburg
*London
Manila
Milan
Montevideo
*Montreal
Osaka
Paris
Rio de Janeiro
*Rotterdam
Santiago
Sao Paulo
Seoul
Shanghai
Tientsin
Tokyo
Toronto
Vancouver
Winnipeg

P-142

BOYER PNEUMATIC HAMMERS · · LITTLE GIANT PNEUMATIC AND ELECTRIC TOOLS
CHICAGO PNEUMATIC AIR COMPRESSORS · · VACUUM PUMPS · · PNEUMATIC HOISTS,
GIANT OIL AND GAS ENGINES ROCK DRILLS · · COAL DRILLS

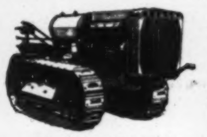
CANADIAN PNEUMATIC

CHICAGO PNEUMATIC

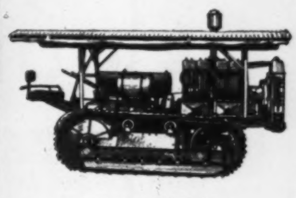
Depend upon that Name

There are three models of Best Tractors—the "Cruiser" (60), the "Thirty" and the "Sixty." All are factory-built —not assembled.

Best "Cruiser" (60)



Best "Thirty"



Best "Sixty"

Tractor Power in Road Building

Time is the essence of most contracts. By keeping pace with his schedule, by jumping ahead a few steps when possible, the road builder is able to get through the job clean and with his profit tucked away in the bank.

And it is right here that dependable Best Tractors show their real value to the road-maker. Best Tractors save time. They provide profit insurance. To begin with, work can be started or carried on in weather and with soil conditions that would keep animals off the job and in the stalls. The long, wide tracks enable Best Tractors to work on soft, rough or sandy soil. Enforced idleness is reduced to the very minimum.

Then, with work under way, the tractor operates the elevating grader, the plow, scarifier, scrapers, blade graders and other tools at regular speeds and maximum capacities. No time is lost for frequent rests. No work is slighted because of tough going or tired animals. In fact, with Best Tractors the contractor or engineer can map out for himself a shorter schedule than is possible where animals furnish the mobile power. And he does a better, cleaner piece of work.

Best Tractors provide the engineer and contractor with reliable power in compact form, easy to maneuver, and managed by one man. Dependability, power and low cost of operation are proven qualities in Best Tractors, the result of Best design, choice of materials and workmanship. These, in turn, are the products of many years of successful tractor-building experience.

BEST
TRACKLAYER
TRACTORS

Let us send you further information on the use of tractors; also specifications, prices and names of nearest dealers.

C. L. BEST TRACTOR CO.
SAN LEANDRO - CALIFORNIA

Chapman Valves

Guaranteed Five Years

Performance and Reputation Count

This Guaranty applies to the Chapman List 63½ Cast Steel Gate Valves for Superheated Steam.

"Why should we experiment with other valves when we know that we can always get Chapmans?

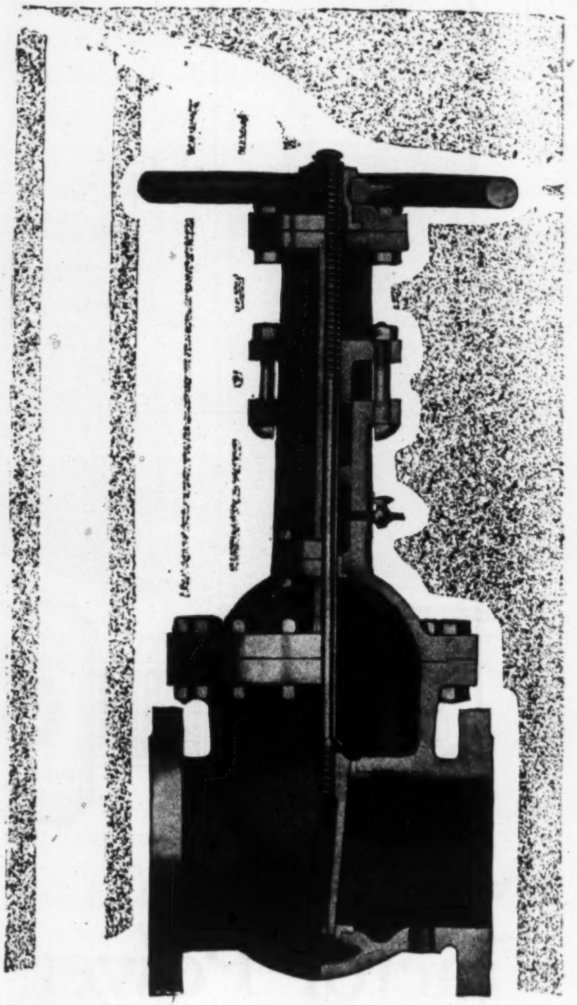
"We have passed the experimental stage and have found that a Chapman Valve always delivers. And whenever there is any kind of an improvement in valve design or construction it usually appears first with the CHAPMAN trade mark."

The Engineer who said this is only one of many who make their selection from the Chapman Valve Handbook No. 38.

Have you your copy?

BRANCHES:

New York Boston
Pittsburgh Philadelphia
Detroit Cleveland
Chicago Los Angeles
San Francisco Tulsa



Chapman Valve Mfg. Co.,

Indian Orchard, Mass., U.S.A.

Owner would not take chances on blasting—

"And we had to take out several old foundations laid in Portland cement (the one shown in the foreground was 18 inches thick).

"So we had to break it up with the ERIE—and she went right through it."—*Thomas Brown Contracting Co., Buffalo, N. Y.*

Instead of Dynamite

MOHN & HUNTER CO
LAUNDRY

Excavation for Loew's New State Street Theatre, Washington and Mohawk Streets, Buffalo.

You will feel this way, too when you own an Erie!—

"After using other steam shovels for years, we purchased our first **ERIE** in 1915. We have found the **ERIE** Shovel far superior to any other shovel on the market, in every way, shape and form. It works faster and is more durable, which means better results."—*Thomas Brown, President, Thomas Brown Contracting Co., Buffalo, N. Y.*

MORE POWER: Contractors who own different makes of steam shovels nearly always select their ERIES for the hardest digging. This is the general practice—you see it everywhere—and it speaks for itself!

MORE ENDURANCE: Owners report that their **ERIES** average less than one-third as much upkeep cost as their other shovels. The **ERIE** is built with extra strength at every point of wear and strain.

GREATER SPEED: Faster swing; faster "crowd"; simple control, with only 3 levers for all digging and dumping operations.

LARGER OUTPUT: It is a common occurrence for **ERIE** Shovels to deliver 30% to 40% more actual yardage than other shovels on the same digging. Check this up for yourself—get figures direct from the owners.

We will be very glad to send you actual records, in proof of the statements made above. Just write and tell us what class of work you are interested in.

BALL ENGINE CO., Erie, Pa., U. S. A.

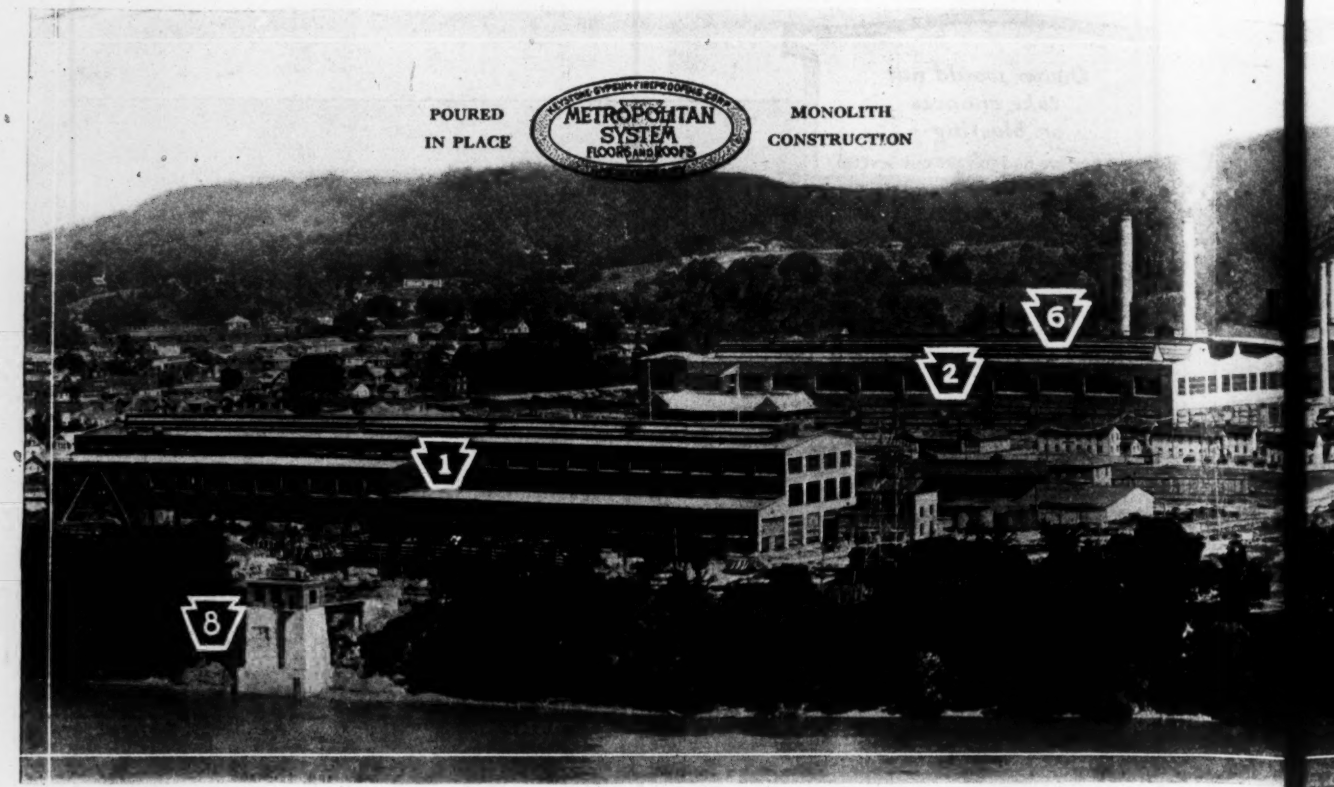
Builders of ERIE Steam Shovels, Locomotive Cranes, Railway Ditchers

Branch Offices: NEW YORK, BOSTON, PITTSBURGH, CHICAGO

Representatives throughout the U. S. A.

ERIE Revolving Shovels

BALL Engine Co.


POURED IN PLACE
KEYSTONE GYPSUM FIREPROOFING CORP.
METROPOLITAN SYSTEM
FLOORS AND ROOFS
MONOLITH CONSTRUCTION
1
2
6
8

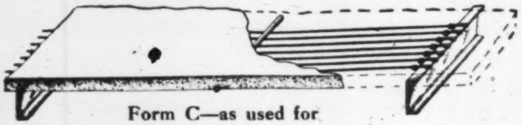
1—Projectile Shop
2—Machine Shop
3—Substation
4—Forge and Furnace
5—Open Hearth
6—Heat Treatment
7—Boiler House
8—River Pump Station

U. S. Naval Ordnance Plant

South Charleston, W. Va.

905,450

square feet of poured gypsum roofing



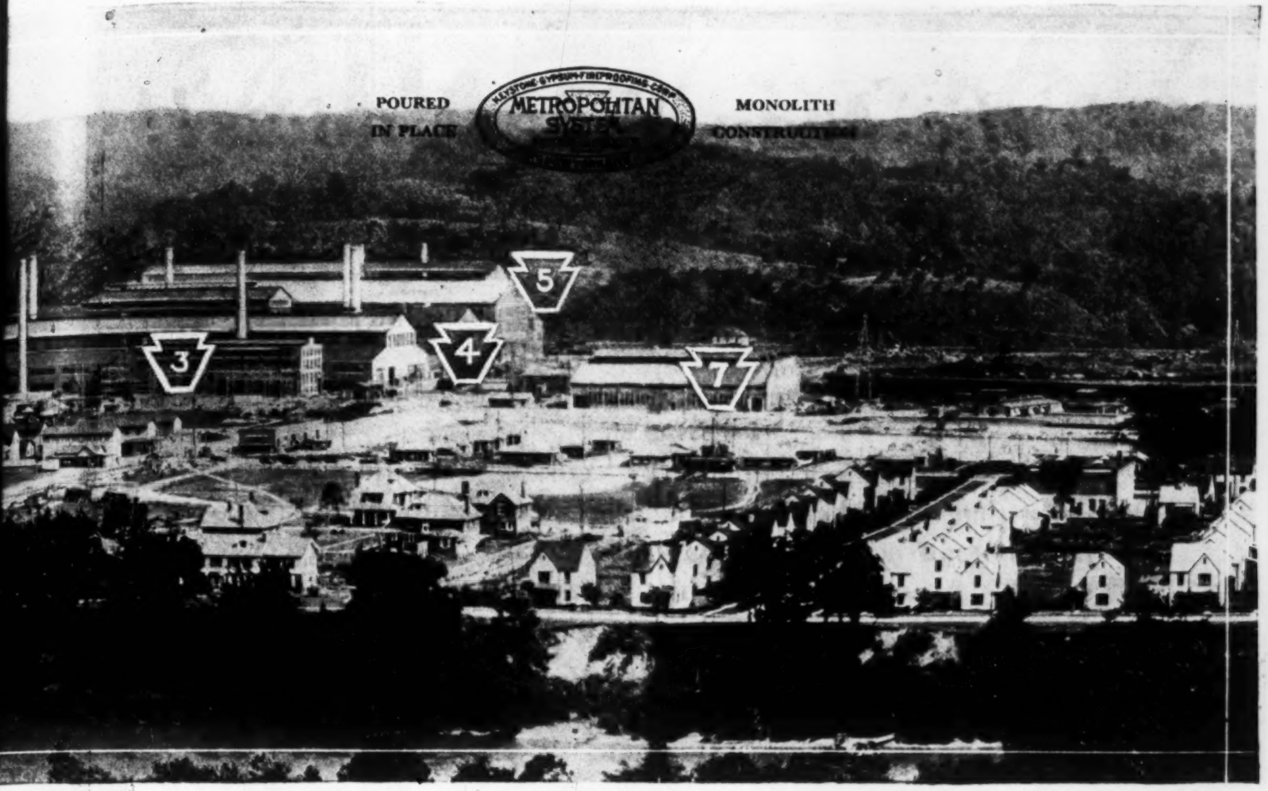
Form C—as used for roofs of plant shown.

KEYSTONE GYPSUM FIREPROOFING CORPORATION

1328 BROADWAY, NEW YORK

Branches:

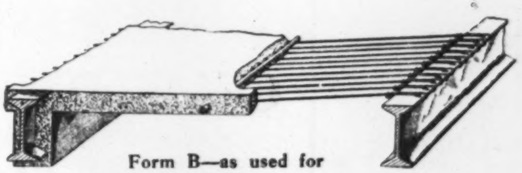
Philadelphia, Pa. North American Bldg.
Toledo, Ohio Summitt and Sandusky Sts.
Cincinnati, Ohio 1207 Mercantile Library Bldg.
Columbus, Ohio 67 East Long St.
Quebec 203 St. John St.
Washington, D. C. Real Estate Trust Bldg.
Dayton, Ohio 1038 Reibold Bldg.
Cleveland, Ohio 412 Stuyvesant Bldg.
Toronto, Ont. 250 Richmond St., W.
Montreal 603 New Birks Bldg.
Pittsburgh, Pa. 1521 First National Bank Bldg.


POURED
IN PLACE
KEYSTONE GYPSUM FIREPROOFING CORP.
METROPOLITAN
SYSTEM
MONOLITH
CONSTRUCTION
5
3
4
7

The Largest Poured Gypsum Roof Contract ever let by the Government

On December 1st this contract was 96.2% finished, according to Government record.

Battleship Construction
may be stopped
but Metropolitan Roofing
goes on forever



Form B—as used for floor construction elsewhere.

KEYSTONE GYPSUM FIREPROOFING CORPORATION

1328 BROADWAY, NEW YORK

Branches:

Philadelphia, Pa.
North American Bldg.

Toledo, Ohio
Summitt and Sandusky Sts.

Cincinnati, Ohio
1207 Mercantile Library Bldg.

Columbus, Ohio
67 East Long St.

Quebec
203 St. John St.

Washington, D. C.
Real Estate Trust Bldg.

Dayton, Ohio
1038 Reibold Bldg.

Cleveland, Ohio
412 Stuyvesant Bldg.

Toronto, Ont.
250 Richmond St., W.

Montreal
603 New Birks Bldg.

Pittsburgh, Pa.
1521 First National Bank Bldg.

Ask the Man Who Knows!!

Last week we showed you a photograph of Grand Central Station, New York, and asked you to visit this structure and see for yourself how Gunite protects steel.

Perhaps you do not get to New York and would like to know that the engineers of the City of Chicago, who have had longer experience with Gunite than any other engineers, specified that all the steel underneath the new Michigan Boulevard River Crossing should be covered with Gunite.

Visit this structure and see for yourself.

Gunite is hydrated at the nozzle
of the

CEMENT-GUN
TRADE MARK

CEMENT-GUN COMPANY

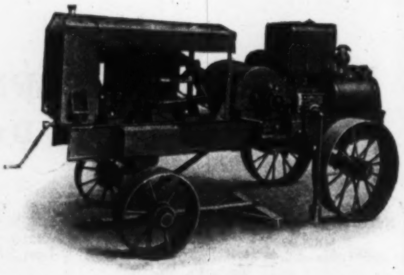
Incorporated
Allentown, Pa.

The "Cement-Gun" is not a restricted article. It may be purchased and operated by anyone.

Branch Offices:

New York Office, 30 Church St.; Chicago Office, 616 Chamber of Commerce; Pittsburgh Office, 211 Fulton Bldg.; Los Angeles Office, Citizens National Bank Bldg.; Spokane Office, 615 Mohawk Block; Richmond Office, 712 Virginia Railway and Power Bldg.; Sioux City Office, 1811 Ross St.; Canada, east of Alberta, The General Supply Co. of Canada, 360 Sparks St., Ottawa and 85 Water St., Winnipeg, Man., Can.; 38 Toronto St., Toronto, Ont.; Ferguson Block, North Bay; McGill Bldg., Montreal, Que.; Empire Block, Moncton, N. B.

All inquiries except from the United States and its possessions, Canada, Mexico and Cuba, should be taken up with the International Cement-Gun Company, 50 Maria Plaats, Utrecht, Holland.



Use Traylor Portable Compressors. They are compact, sturdy and free from vibration.

The HAISS *Creeper Loader*

is a good purchase

For you or for anyone else whose work has to do with handling stone, sand, gravel or other loose material—it *cuts costs* 75% over other machines and methods.

And it is so reliable. It is built sturdy and strong beyond precedent, and embodies certain exclusive features that immediately win the favor of those who are keen for economy of operation and performance.

It loads at the rate of a yard and a half a minute at a power cost of 1 cent per yard of material handled. There is no theory about it —it's a good business proposition for any material handler.

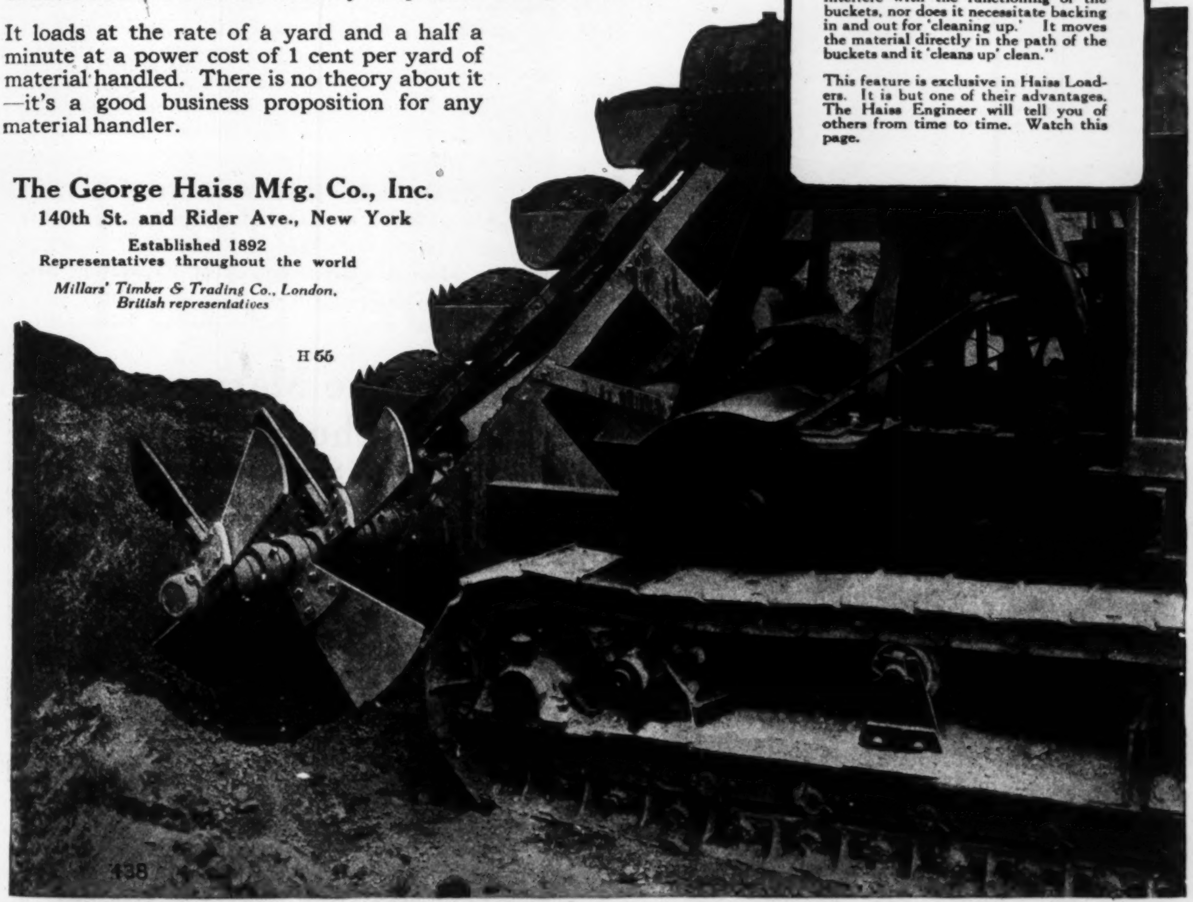
The George Haiss Mfg. Co., Inc.
140th St. and Rider Ave., New York
Established 1892
Representatives throughout the world
Millars' Timber & Trading Co., London, British representatives

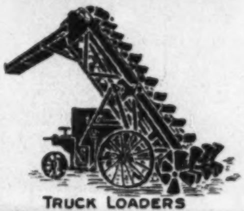
H 66

A Word With the Haiss Engineer

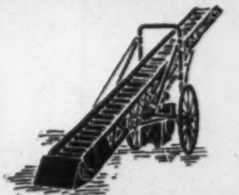
"The self feeding device of all Haiss Loaders is positive acting. It does not depend for its effectiveness on the cohesion of the material—it does not interfere with the functioning of the buckets, nor does it necessitate backing in and out for 'cleaning up.' It moves the material directly in the path of the buckets and it 'cleans up' clean."

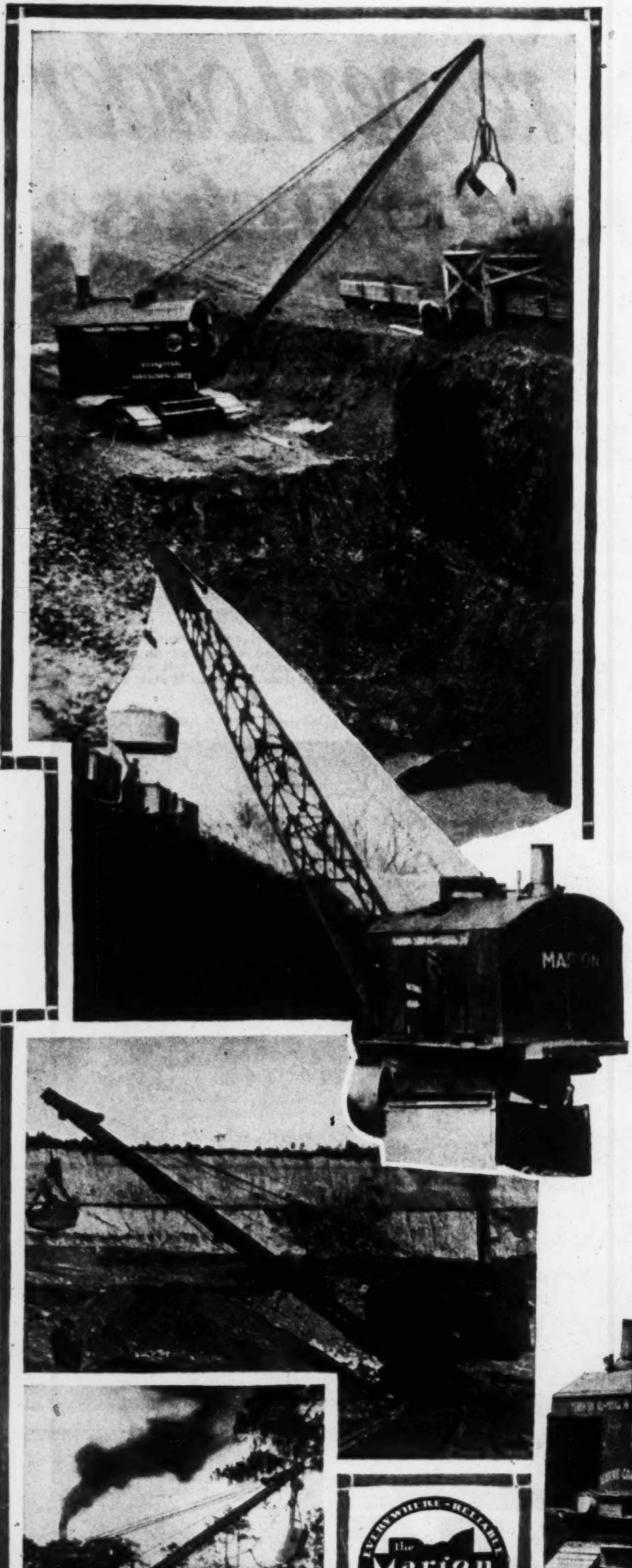
This feature is exclusive in Haiss Loaders. It is but one of their advantages. The Haiss Engineer will tell you of others from time to time. Watch this page.




TRUCK LOADERS

HAISS
MATERIALS HANDLING EQUIPMENT
CLAM SHELL BUCKETS


PORTABLE BELT CONVEYORS



This Versatility *of* MARION Revolving Shovels

is of Inestimable Value to the general contractor

Every revolving Marion Shovel can be converted easily and quickly, into Dragline, Clamshell or Orangepeel Excavator or Crane. They are designed for this conversion because it enables the operator to handle a great range of work with one machine. And in each operation Marions have steam-shovel strength and efficiency.

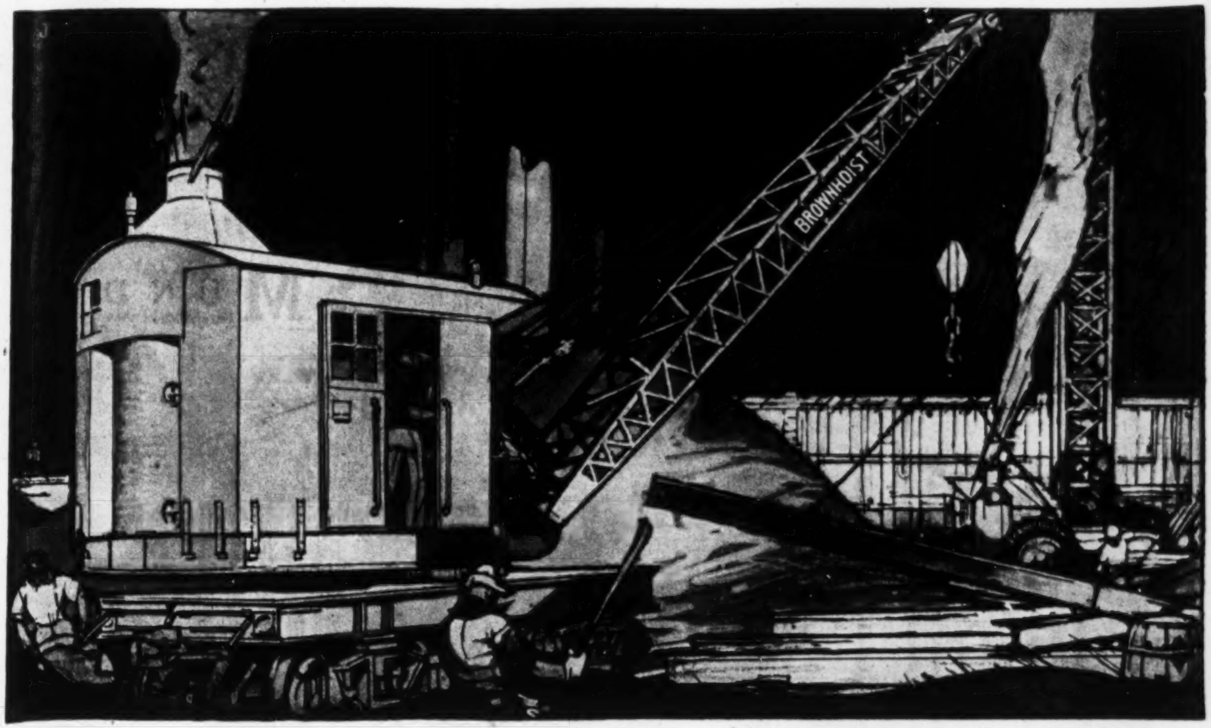
For small drainage and irrigation ditches they give capacity and economy; also wider working range and ability to deposit material at a greater distance from the ditch. For building levees handling sand and gravel from wet pit, making fills. High lift for basement and other wide-range work. Also as a pile driver.

THE NEW AND THOROUGHLY ILLUSTRATED MARION BOOKLET gives the complete story of Marion versatility and individual points of merit in Marion Shovels and other Excavating Machinery. We shall be glad to send you a copy.

The Marion Steam Shovel Company
210 Main Street, Marion, Ohio

Representatives in principal cities in U. S., Canada, South Africa, England, Siam, Mexico, Russia, Straits Settlement, Sweden and New Zealand.

Everywhere - Reliable
The Marion Steam Shovel Co.
Established 1884



Brownhoist Cranes Help Build New Cadillac Plant

In building the new modern plant where Cadillac Motor Cars are now made, six Brownhoist Cranes aided in speeding up construction immeasurably.

These cranes helped push construction all the time. Working with buckets, they moved gravel, sand and coal. Working with bottom block they sped-up the handling of forms and girders.

On any job where speed and handling costs are factors, Brownhoist Cranes give definite evidence of their ability, speed and sturdy strength.

Whether your handling job be large or small there is a Brownhoist to fit your need. Write for our Crane booklet. It shows many money-saving uses for Brownhoist Cranes.

Brownnoist Products

Locomotive Cranes
Concrete Bunkers
Overhead Cranes
Dock Machinery
Bridge Cranes
Buckets

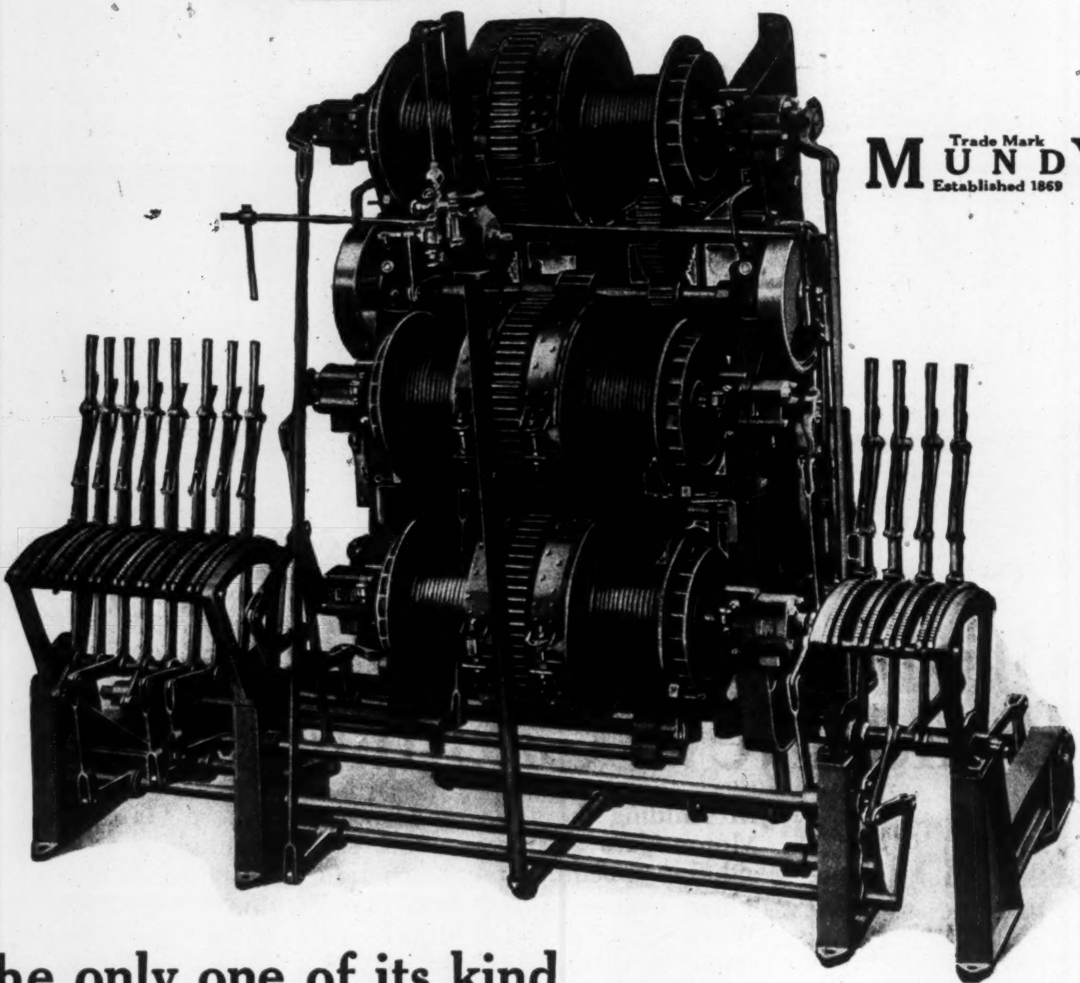
Literature on Request

The Brown Hoisting Machinery Co., *Cleveland, Ohio*
Branches: New York, Chicago, Pittsburgh, San Francisco, New Orleans

BROWNHOIST

MATERIAL HANDLING MACHINERY

ESTABLISHED 1869



Trade Mark
MUNDY
Established 1869

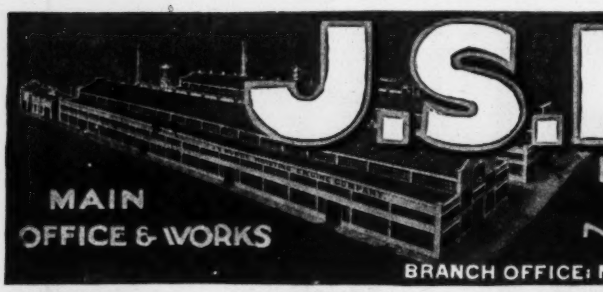
The only one of its kind

This 7¼ in. x 10 engine was built for the Merrit and Chapman Derrick and Wrecking Company, and installed on their wrecking boat "Resolute."

The uppermost drums are slow speed for trimming boom, middle drums are for operating boom, lower drums for light fast cargo hoisting.

Typical of what our engineers produce when special work is required.

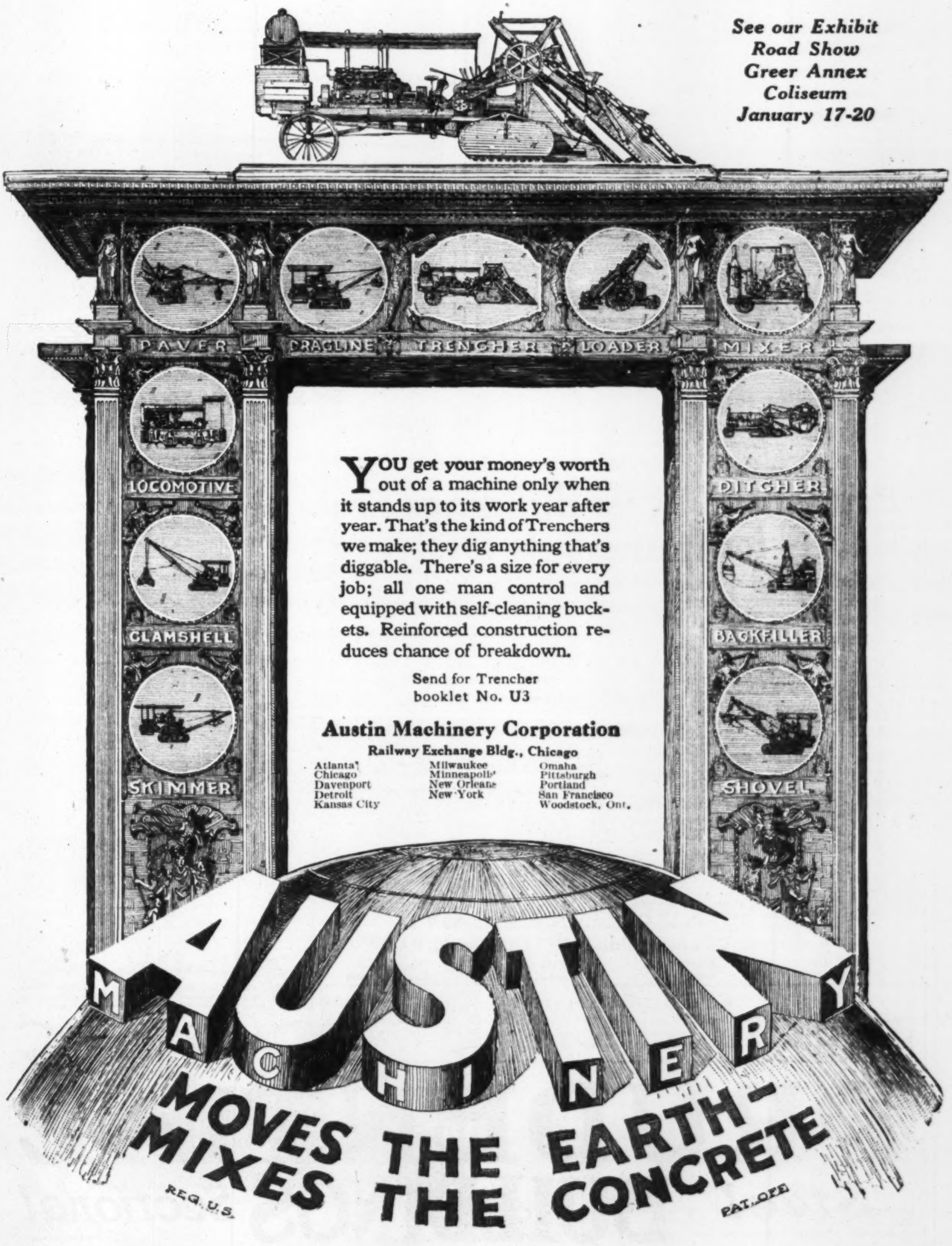
Send for Catalog No. 16 fully describing this engine.



J.S. MUNDY
HOISTING ENGINE COMPANY
NEWARK, NEW JERSEY, USA
MAIN OFFICE & WORKS
BRANCH OFFICE: NEW YORK CITY

ATLANTA, GA.
BEAUMONT, TEXAS
BOSTON, MASS.
CHICAGO, ILL.
CINCINNATI, OHIO
CLEVELAND, OHIO
DALLAS, TEXAS
DES MOINES, IOWA
HOUSTON, TEXAS
HUNTINGTON, W. VA.
JACKSONVILLE, FLA.
KANSAS CITY, KAN.
KNOXVILLE, TENN.
LOS ANGELES, CAL.
MOBILE, ALA.
MONTREAL, CANADA
NEW ORLEANS, LA.
NORFOLK, VA.
OTTAWA, CANADA
PHILADELPHIA, PA.
PITTSBURGH, PA.
PORTLAND, ORE.
RICHMOND, VA.
SAN FRANCISCO, CAL.
SALT LAKE CITY, UTAH
SEATTLE, WASH.
SPOKANE, WASH.
ST. LOUIS, MO.

See our Exhibit
Road Show
Greer Annex
Coliseum
January 17-20


PAVER
DRAGLINE
TRENCHER
LOADER
MIXER
LOCOMOTIVE
DITCHER
CLAMSHELL
BACKFILLER
SKIMMER
SHOVEL
AUSTIN
MACHINERY
MOVES THE EARTH-
MIXES THE CONCRETE
REG. U.S. PAT. OFF.

YOU get your money's worth out of a machine only when it stands up to its work year after year. That's the kind of Trenchers we make; they dig anything that's diggable. There's a size for every job; all one man control and equipped with self-cleaning buckets. Reinforced construction reduces chance of breakdown.

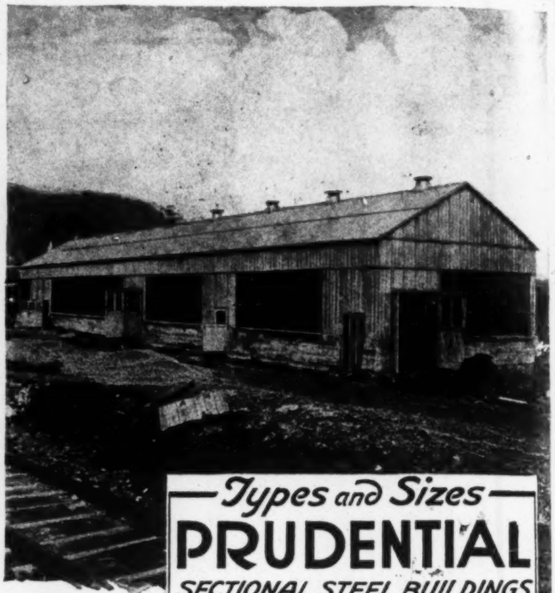
Send for Trencher
booklet No. U3

Austin Machinery Corporation

Railway Exchange Bldg., Chicago

Atlanta
Chicago
Davenport
Detroit
Kansas City
Milwaukee
Minneapolis
New Orleans
New York
Omaha
Pittsburgh
Portland
San Francisco
Woodstock, Ont.

Everything's going up in smoke. How long will it take us to rebuild our plant?



Right:—Prudential Sectional Steel Building erected by the Consumers Mining Co., and used as a blacksmith shop.

Prudential Steel Buildings are Ready for Immediate Delivery

When fire or other disaster results in a building problem—where immediate delivery of fireproof, serviceable and lasting buildings is imperative—WIRE BLAW-KNOX.

As soon as your order is received a chain of motion is established which begins in our stock rooms and ends in your yards. There is no engineering to be done—no drawings to be made and changed—nothing but the selection of standard steel parts of cover, frame and equipment.

All buildings meet your exact specifications and are SHIPPED FROM STOCK.

Among many representative firms who use Prudential Buildings for every conceivable purpose from storage to power houses, are—

Worthington Pump Co.
City of Baltimore
Black Products Co.
Penna. Casting & Machine Works
C. & O. Railroad
Rockland & Rockport Lime Co.
Boston Consolidated Gas Co.

PRUDENTIAL HIGH LIGHTS

All cover sheets press formed and galvanized.
A size for every need.
Structural steel frame made in our own shops.
Prudential Buildings have 100% salvage value.
Patented leakproof construction.
All parts standard.

BLAW-KNOX COMPANY

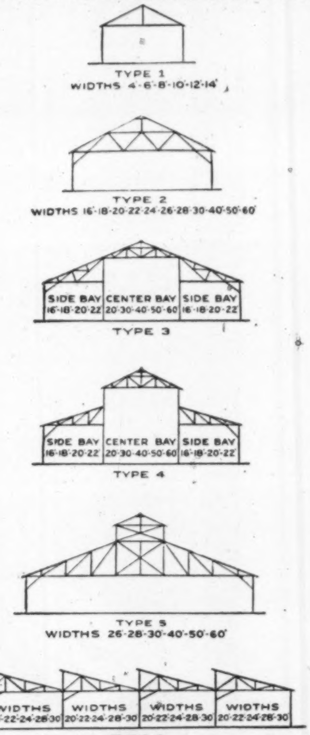
601 Farmer's Bank Building, PITTSBURGH, PA.

New York
Chicago
Boston
Detroit
Baltimore
Kansas City
Birmingham
San Francisco

SEE OUR EXHIBIT

of Blaw-Knox Equipment for Road Builders at 13th NATIONAL GOOD ROADS SHOW A.R.B.A. Booths 106, 107, 108, 130, 131, 132. To be held in the Coliseum, Chicago, Ill., January 16th to 20th inclusive. Our representatives there will be at your service.

Types and Sizes
PRUDENTIAL
SECTIONAL STEEL BUILDINGS


TYPE 1
WIDTHS 4'-6'-8'-10'-12'-14'
TYPE 2
WIDTHS 16'-18'-20'-22'-24'-26'-28'-30'-40'-50'-60'
SIDE BAY 16'-18'-20'-22'
CENTER BAY 20'-30'-40'-50'-60'
SIDE BAY 16'-18'-20'-22'
TYPE 3
SIDE BAY 16'-18'-20'-22'
CENTER BAY 20'-30'-40'-50'-60'
SIDE BAY 16'-18'-20'-22'
TYPE 4
TYPE 5
WIDTHS 26'-28'-30'-40'-50'-60'
WIDTHS 20'-22'-24'-28'-30'
WIDTHS 20'-22'-24'-28'-30'
WIDTHS 20'-22'-24'-28'-30'
WIDTHS 20'-22'-24'-28'-30'
TYPE 6

BLAW-KNOX

PRUDENTIAL
Steel BUILDINGS *Sectional*

Wisconsin

CONSISTENT

Furnishes Emergency Power on the longest Single-Leaf Bascule Bridge in the World.

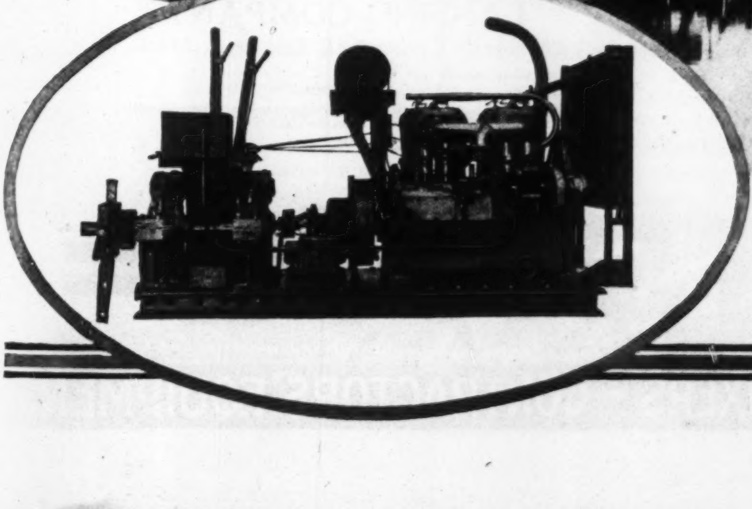
An outstanding example of the unusual range of users to which Wisconsin motors can be successfully applied is found in the St. Charles Air Line bridge across the Chicago River —the longest single leaf bridge yet built, 260 feet between trunnions and end bearings. It is of the Strauss type, superstructure design and plans being made by the Strauss Bascule Bridge Company. Total weight of the steel, 1544 tons.

A 60-hp. Wisconsin motor, used in a Norwood-Noonan gasoline bridge unit, is used for emergency power. Norwood-Noonan standardize Wisconsin motors for their unfailing dependability and reliability in this important service.

For range of application, for versatility, and for consistency second to none, Wisconsin motors gives results that manufacturers of industrial equipment find exactly suited to their products.

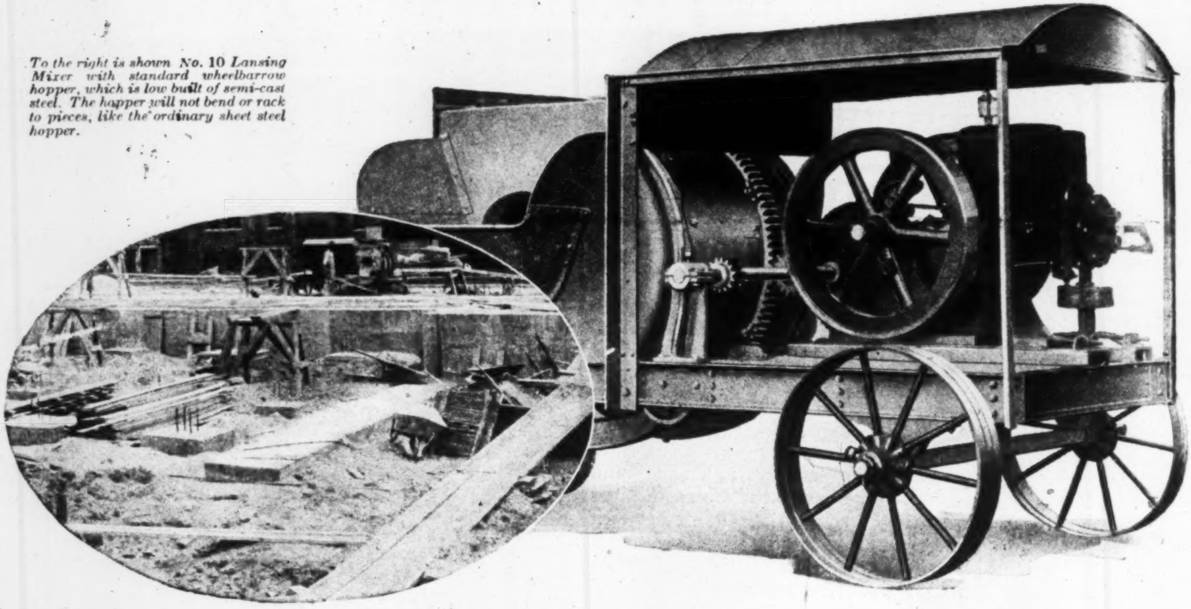
Our industrial bulletin gives full details concerning the application of Wisconsin motors to industrial requirements. Your copy is waiting to go out.

WISCONSIN MOTOR MANUFACTURING CO
Milwaukee, Wisconsin.



A typical Norwood - Noonan gasoline engine bridge unit. Other Norwood-Noonan products are gasoline engine-dynamo outfits. Wisconsin Motors have been found to be biggest in service and general value, whenever used in such units. You can't go wrong with a Wisconsin.

To the right is shown No. 10 Lansing Mixer with standard wheelbarrow hopper, which is low built of semi-cast steel. The hopper will not bend or rack to pieces, like the ordinary sheet steel hopper.



STANDARDIZE ON LANSING

Make sure that your wheelbarrows, hoists, concrete carts, material elevators, scrapers—as well as your concrete mixers—bear the Lansing name.

Standardization on Lansing products assures contractors that their equipment is built right and priced right.

Here are Lansing facts regarding construction, price and service:

CONSTRUCTION—The Lansing line of contractors' equipment assures dependable, standardized quality—the best design, materials and workmanship that can be produced by an organization that has specialized in the manufacture of concrete mixers, hoists, carts, elevators, wheelbarrows, etc., for nearly 40 years.

PRICE—The Lansing Company buys thousands of tons of steel annually. Other raw materials are purchased on a big quantity basis. A tremendous saving is effected. Then, too, with our own foundry and machine shop, the entire Lansing line is built in our own plant. You receive the benefit of our low manufacturing cost, which brings our selling price down to a level that cannot be reached by the smaller manufacturer of a product of equal quality.

SERVICE—Besides large repair stocks in our eight branches, Lansing dealers in all sections of the country are required to carry spare parts. As a result, owners of Lansing Mixers and other contractors' equipment are enabled to take advantage of service arrangements which for extent and thoroughness are unequalled. The Lansing Company insures prompt service to all contractors—in New England as well as on the Pacific Coast.

Write for Catalog

Let us send you complete information about the Lansing line of contractors' equipment. Our engineers are particularly well qualified to co-operate with contractors intelligently. Write for our 50 page mixer catalog.

LANSING-COMPANY
26 North Cedar St., Lansing, Mich.

Complete stock of Lansing Contractors' Equipment Carried in the following Branches:

Chicago, Boston, New York, Philadelphia, Minneapolis, San Francisco, Kansas City, Detroit.

Branch Manufacturing Plant: Poughkeepsie, N. Y.

(7)

LANSING
COMPANY
CONCRETE MIXERS – CONTRACTORS' EQUIPMENT

ROAD MULTI FOOTE PAVER

TRADE MARK REGISTERED

Foote Service

No one knows better than Foote what first-class service means to the contractor. The MultiFoote Paver is built in the east but is used and sold in every part of the country.

Every one of our agents carry a complete stock of replacement parts and can supply you on a moment's notice with whatever equipment you may need in order to keep your outfit moving.

The Foote Company serve the Contractor operating in the far west just as they do the operator in the eastern states.

A telegram to the nearest agent and your order goes out on the first express accompanied if necessary by a Foote mechanic.

If you are operating a MultiFoote Paver, trouble will be the least concern you have — but should trouble develop you may be sure the Foote Agent is back of you one hundred per cent.

Operating 16 Hours A Day In California

Rogers Brothers Co., of Los Angeles, used a 21 E MultiFoote gas paver in the construction of the Taft-Bakersfield concrete highway this past spring.

They operated two 8-hour shifts. The MultiFoote, a new machine, was run continuously 16 hours a day for 42 working days or over 67 days elapsed time — a remarkable test for a new piece of machinery. They reported no delays due to breakdown of the paver. No. 1 shift *averaged* 587 *feet per day* — No. 2 shift *averaged* 509 *feet per day* of 13-foot concrete road. Write the nearest **Foote Agent** for complete information and catalogs.

GENERAL AGENTS

Foote Concrete Machinery Co., 1241 Michigan Ave., Chicago, Ill.

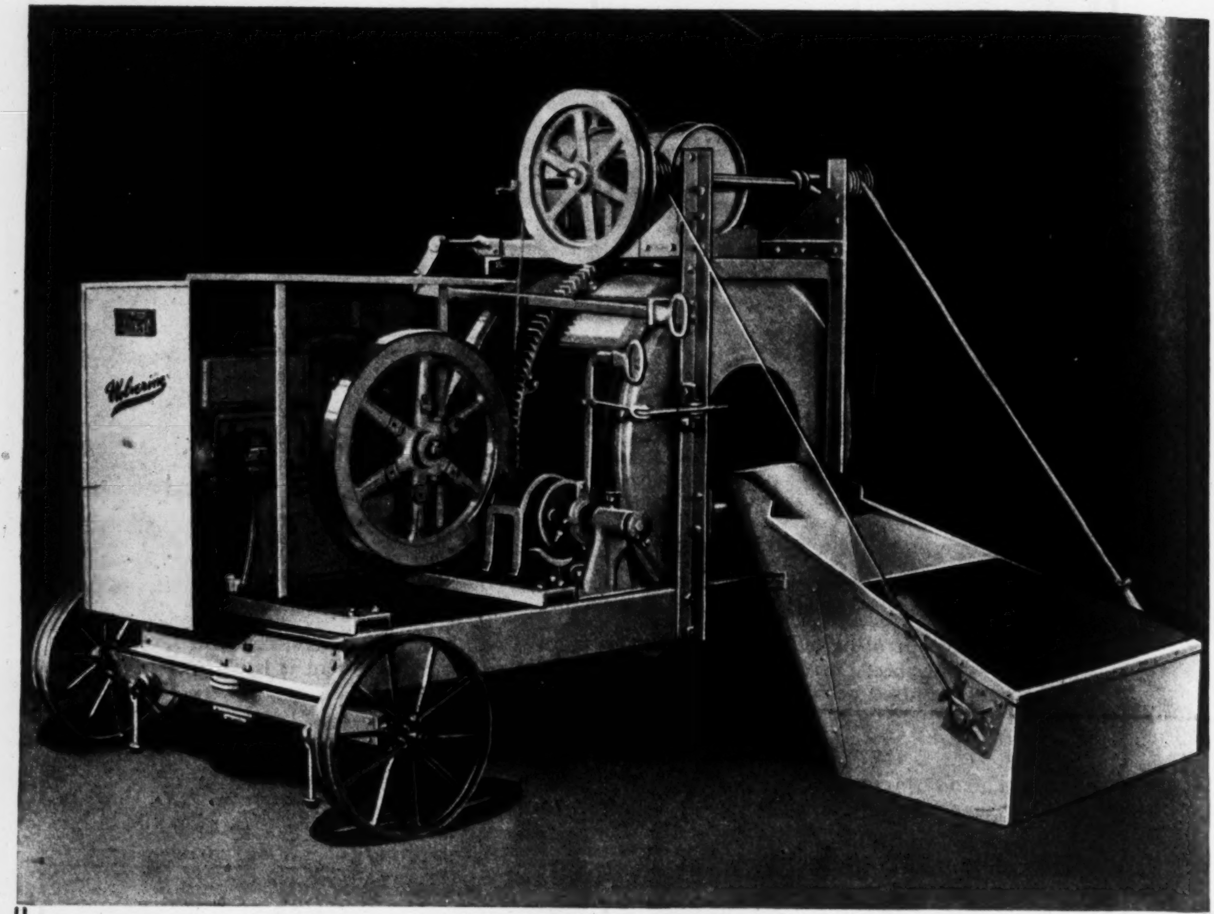
Edward R. Bacon Co., 51 Minna St., San Francisco, Cal.

Wilcox Bros., Inc., 30 Church St., New York, N. Y.

E. J. McHarg & Co., 3 Crandall St., Binghamton, N. Y.

Burton Franklin, Volunteer Bldg., Chattanooga, Tenn.

Made by Foote Co., Inc., Nunda, N. Y.



DISTRIBUTORS

THE C. H. JONES CO., Dooly Bldg., Salt Lake City, Utah.

HATCHER, MCKENNA & CO., 3665 Market St., St. Louis, Mo.

GEO. W. FIFE EQUIP. CO., Merchants Bank Bldg., Indianapolis, Ind.

ROBT. ARMSTRONG & BRO., Atlanta, Ga.

CLARKSBURG SUPPLY & EQUIP. CO., 606 E. Pike St., Clarksburg, W. Va.

SPEERS-JEVNE, Eighth Floor, Builders Exchange Bldg., Minneapolis, Minn.

MACHINERY RENTAL & SALES CO., 2918 Southwest Blvd., Kansas City, Mo.

THE G. H. ALWINE CO., 238 Brandeis Theatre Bldg., Omaha, Nebr.

BRIAN & POWERS, Canal Bank Bldg., New Orleans, La.

Quick Deliveries and Service

A Knickerbocker Product

$325.00 F.O.B. Factory for The Wolverine Half-Bag Size Mixer, equipped with 3 hp. engine and magneto, also engine housing and low charging hopper, steel trucks with standard track—may be equipped with batch hopper.

$595.00 F.O.B. Factory for The Wolverine One-Bag Size Mixer, equipped with 5 hp. engine and magneto, steel engine housing, low charging hopper and steel trucks with standard track—may be equipped with power loader, automatic pressure water tank or batch hopper.

Built by

The Knickerbocker Company
400 Liberty Street, Jackson, Michigan
ESTABLISHED 1883
Builders of Knickerbocker Concrete Mixers, sizes 21, 14, 7 and 5 cu. ft. Mortar Mixers and Portable Saw Rigs.

DISTRIBUTORS

THE DAY & MADDOCK CO., W. 82nd St., South of Denison, Cleveland, Ohio.

H. KLEINHANS CO., Union Arcade, Pittsburgh, Pa.

LEWTER F. HOBBS, INC., 113 E. Twelfth St., Norfolk, Va.

TRUMAN M. SMITH, 317 Powers Theatre Bldg., Grand Rapids, Mich.

THE HUBBARD-FLOYD CO., INC., 1112 Grand Central Palace, New York, N. Y.

THE KNICKERBOCKER CO., 709 Arch St., Philadelphia, Pa.

THE HUBBARD-FLOYD CO., Old South Bldg., Boston, Mass.

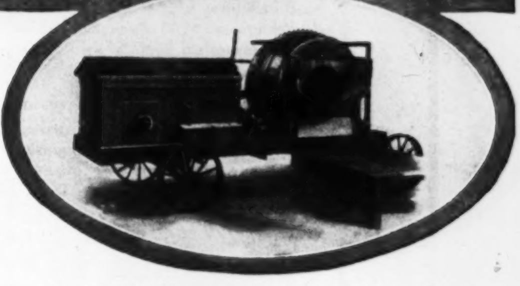
G. W. SIMMONS CO., 118 N. Front St., Memphis, Tenn.

BUHL MACHINE CO., 605 S. Dearborn St., Chicago, Ill.

Quick Deliveries and Service

WE STAND BACK OF IT

GREATER MIXER VALUE—



Two Smith 7-S Mixers Were Used on the Studebaker Housing Project at South Bend

IS NOW TO BE HAD IN SMITH 4-S AND 7-S MIXERS BECAUSE OF RECENT PRICE REDUCTIONS—

But in both these sizes we have maintained the well-known SMITH quality of materials and workmanship.

Due to lower manufacturing costs we are now able to sell these high-grade mixers at low-grade mixer prices.

Equip your jobs with SMITH mixers and be prepared to start work in 1922 with mixers that will profitably produce.

Bulletin 405-A tells how they are built and gives full information regarding their capacities, daily yardages, etc.

Write for your copy of Bulletin 405-A today.

SMITH

The T. L. Smith Company

General Sales Offices and Factory:
1155-32nd Street, MILWAUKEE, WIS.

Eastern Office and Warehouse, 50 Church St., New York. *Western Warehouse, San Francisco*

VALUE THAT ENDURES

TELSMITH Builds Wisconsin Roads

These two pictures show a Telsmith crushing and screening plant, operated by Sheboygan County, Wis. Sheboygan is one of the most progressive counties in a state noted for its good roads. Mr. John Ubelohde, Sheboygan County Highway Engineer, ranks very highly among Wisconsin's road builders. Under his management, this plant has produced gravel at a remarkably-low cost—probably on the most economical basis of any county or municipal plant in Wisconsin.

Telsmith machinery in this plant is as follows:—

One No. 5 Telsmith Primary Breaker, manganese equipped; One No. 2 Telsmith Reduction Crusher, manganese equipped; One No. 6 Telsmith Belt Elevator 50 ft. centers; One Telsmith Heavy Duty Screen, 40 in. dia. by 16 ft. long.

The Sheboygan County outfit is not an exceptional plant; but merely a fair sample of Telsmith's product. Telsmith engineers analyze the customers' requirements; recommend the proper equipment and design the plant. Telsmith mechanics build all the machinery; and Telsmith guarantees a successful plant. Responsibility is centralized. There are no loop-holes—no alibis. Glad to send you our Catalog No. 155 (Telsmith Crushers) and our Bulletin No. G-P-2 (Telsmith General Catalog, describing screens, washers, bucket elevators, belt conveyors, sand tanks, etc.)

Sheboygan county has purchased 21 properties at suitable locations which are expected to supply sufficient gravel and stone for the next twenty years. In addition to that the county road and bridge committee has taken options on adjoining property which will furnish material for many years longer

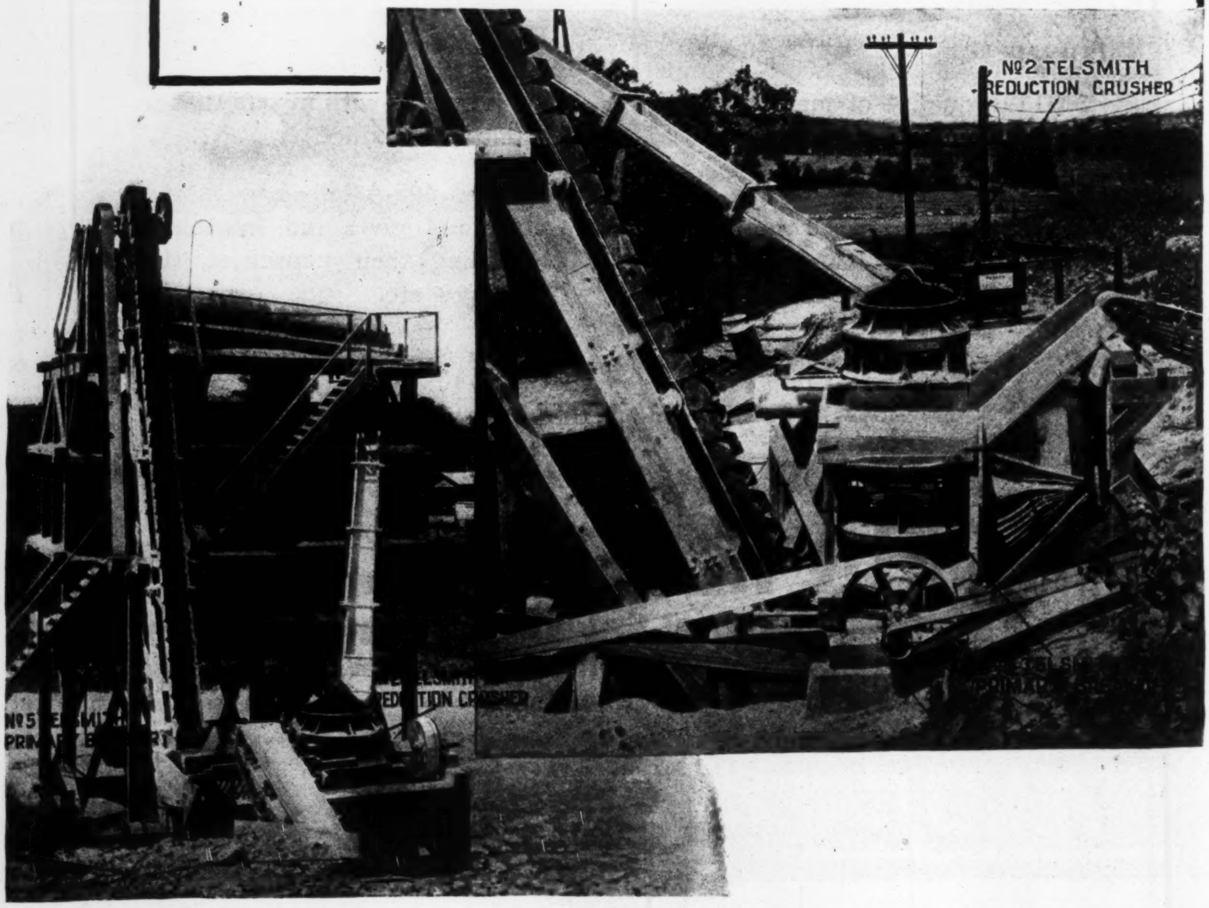
The gravel pit and crusher plant located east of Greenbush is regarded as a model of its kind The plant is electrically operated and only three men are required in this connection One of them operates the machinery and oversees the work, one is employed as belt tender, his duty being to keep the feed belt supplied with gravel and rock from the pit as it is hauled up to him by a huge electrically manipulated drag or shovel, and one who acts as a general utility man and machine wright

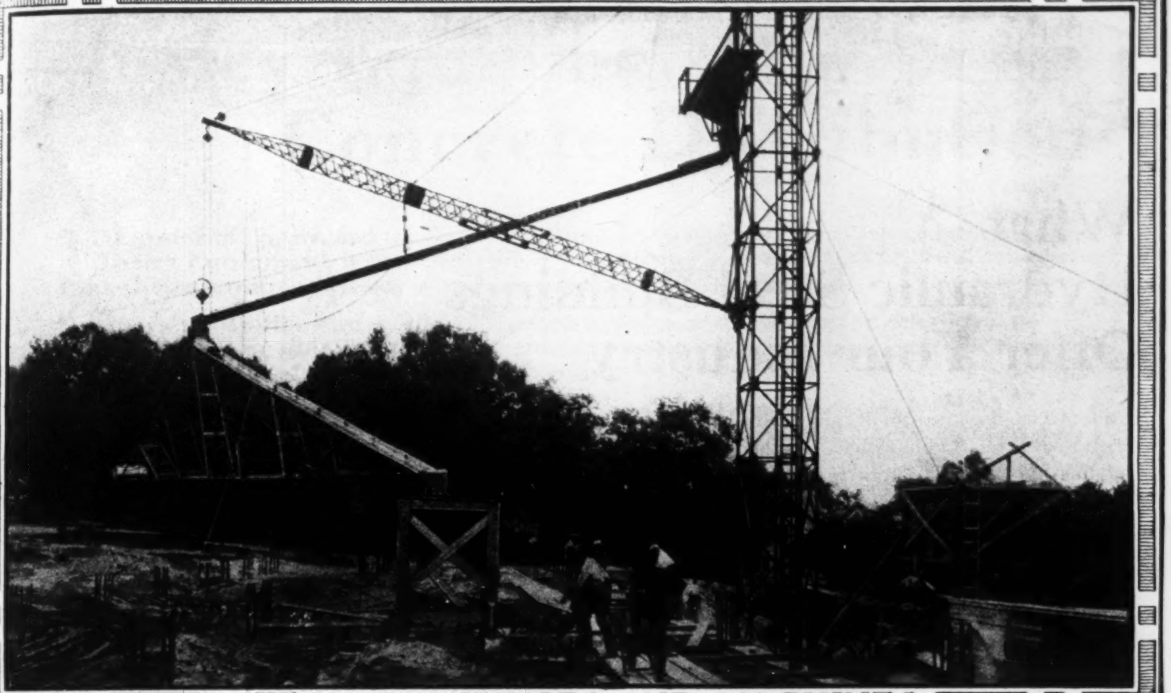
This plant has a capacity of 500 cubic yards daily, but so far has not been operating to that extent because that has not been necessary to supply the demand Rock and gravel bins hold 100 cubic yards and these are kept filled at all times The plant cost $20,000 and this year its output has graveled 18 miles of road, *Oct. issue, Good Roads for Wis.*

SMITH ENGINEERING WORKS

3198 Locust St., Milwaukee, Wis.

Canadian Agents: **Canadian Ingersoll-Rand Co., Montreal, P. Q.**





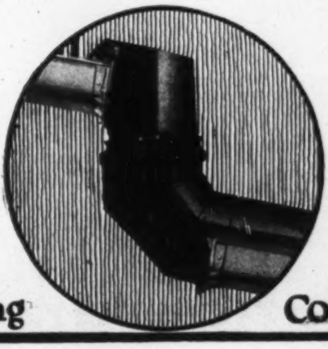
LAKEWOOD METHODS AND MACHINES

They're Speeding This Job With Lakewood Plant

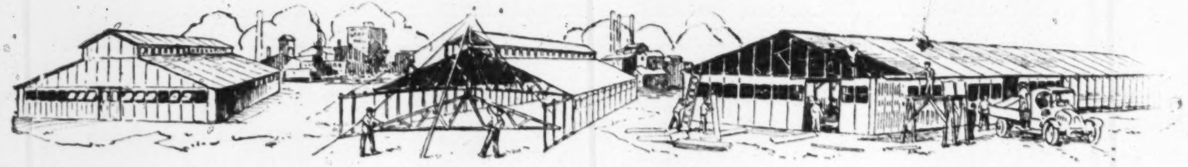
The construction of the North Junior High School at Grand Rapids, Mich., is being pushed with all possible speed.

John C. McNabb & Sons chose a Lakewood Steel Tower and Lakewood Chutes to help them do the job. The Lakewood equipment includes a 150-ft. steel tower and counterweight plant.

Lakewood plant lends itself to economical operation and speedy construction. Have you the Lakewood bulletins?



The Lakewood Engineering Company, Cleveland U.S.A.



What Hydraulic Steel Buildings Offer Your Industry

Aside from the feature of low cost, long life, and resistance to fire, Hydraulic Steel Buildings have another feature of real importance in the building industry: *They can be quickly taken down, moved and re-erected or sold.*

Whether you need a good, substantial building for your client or a quickly erected, sturdy building for yourself to house tools, supplies and equipment, you'll realize distinct savings by sending to Hydraulic.

Phone, wire or write our nearest district office for details.

THE HYDRAULIC STEELCRAFT COMPANY
of THE HYDRAULIC STEEL COMPANY
CLEVELAND, OHIO

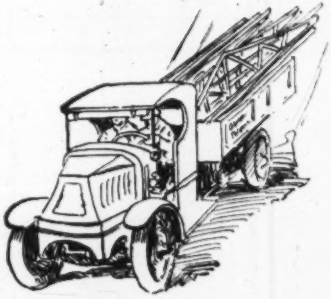
Branch Sales Offices:

New York
St. Louis
Cincinnati
Norfolk, Va.
Augusta, Ga.
Omaha, Neb.

Chicago
Detroit
Memphis
Atlanta
Dallas
Boston

Pittsburgh
New Orleans
Indianapolis
Roanoke, Va.
Wichita, Kan.
Louisville, Ky.

Charleston, S. C.
Charleston, W. Va.
Lansing, Mich.
Richmond, Va.
Kansas City, Mo.
Columbus, Ohio



A complete steel building; or the columns, trusses or purlins.

Salient Features of Hydraulic Steel Buildings

Quick Erection
Strength—All Steel
Permanency—
(rust-resisting "HY-COP" sheets)
Portability
Fireproof
Low Cost
Immediate Shipment
High Salvage Value

HYDRAULIC

HYDRAULIC STEEL BUILDINGS

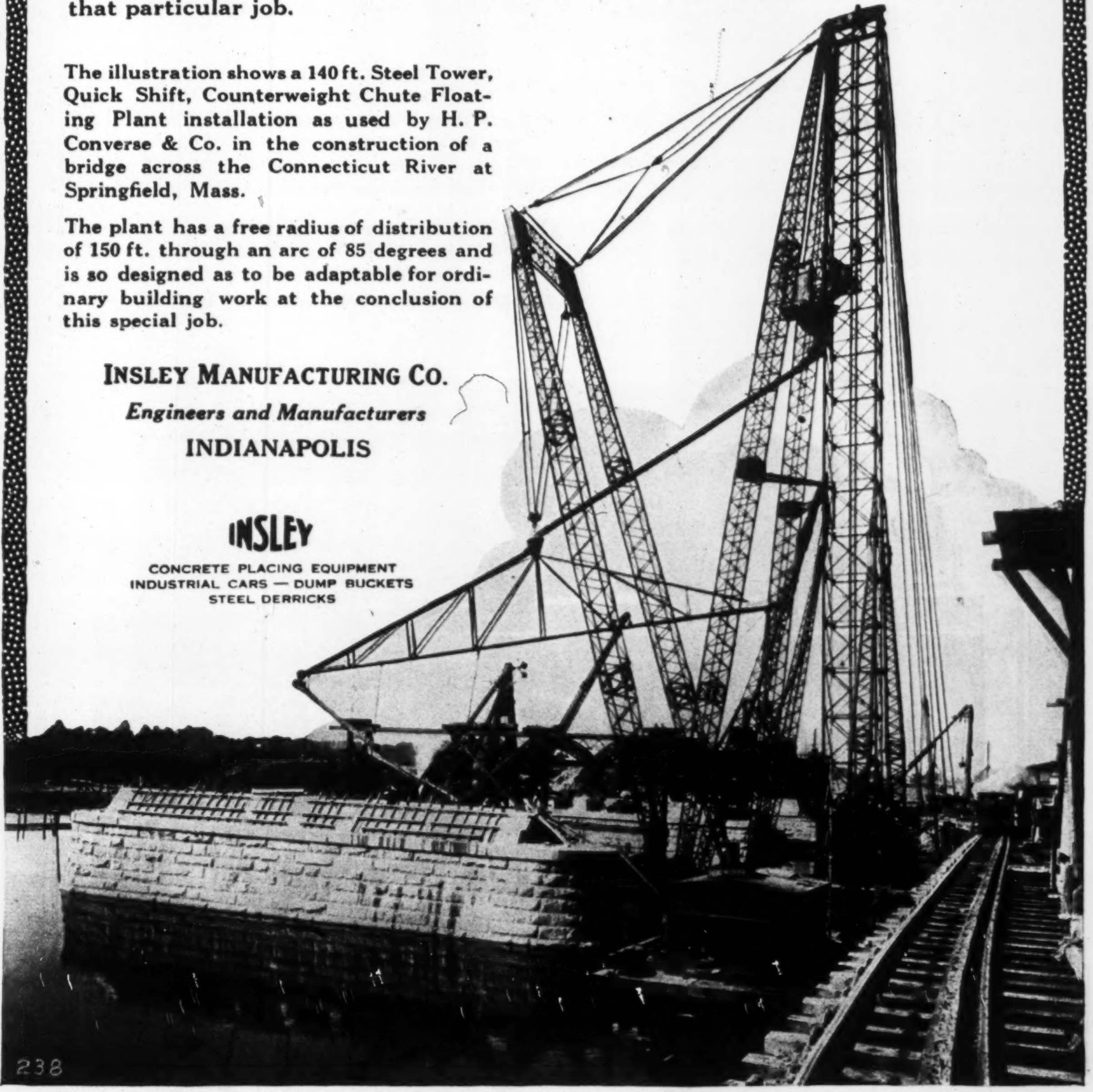
Standardized

Insley Equipment for Concrete Distribution

THE proof of promised performance lies in actual accomplishment and when Insley Equipment is recommended to perform a certain task there is assurance that the recommendations made are capable of fulfillment.

Engineering Ability and a Wide Experience serve as the basis for the developments which are responsible for the most efficient concrete placing equipment which it is possible to place in a contractor's hands.

At the time of figuring your next contract let us tell you what the INSLEY STEEL TOWER, QUICK SHIFT, COUNTERWEIGHT CHUTE PLANT will do for you on that particular job.



The illustration shows a 140 ft. Steel Tower, Quick Shift, Counterweight Chute Floating Plant installation as used by H. P. Converse & Co. in the construction of a bridge across the Connecticut River at Springfield, Mass.

The plant has a free radius of distribution of 150 ft. through an arc of 85 degrees and is so designed as to be adaptable for ordinary building work at the conclusion of this special job.

INSLEY MANUFACTURING CO.
Engineers and Manufacturers
INDIANAPOLIS

INSLEY
CONCRETE PLACING EQUIPMENT
INDUSTRIAL CARS — DUMP BUCKETS
STEEL DERRICKS

VULCAN

The Business Side of Locomotive Building

VULCAN Locomotives are not built or sold on the basis of price competition. They are built on a *performance* basis.

Only sound materials are used and we guard jealously the quality of workmanship which enters into the construction of VULCAN Locomotives.

It is not alone that we have been building locomotives for more than 45 years and wish to maintain the prestige we have earned, but also because we realize that economical transportation for you means an engine of correct design, plus a minimum of repair bills and maintenance charges.

These are the things you buy in a VULCAN Locomotive.

Your problems are our problems.

Correspondence Solicited

VULCAN IRON WORKS

"Established 1849"

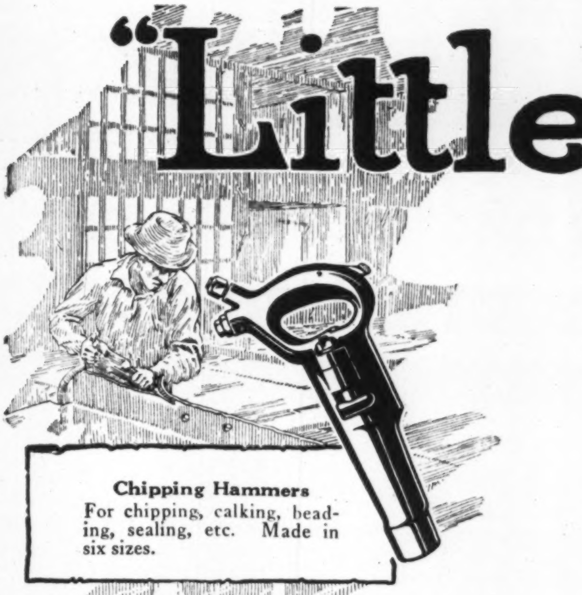
1737 Main Street, Wilkes-Barre, Pa.

DELRAY TERMINAL R.R.
107

VULCAN

"Little David"

Pneumatic Tools



Chipping Hammers
For chipping, calking, beading, sealing, etc. Made in six sizes.

USE them for your repair, construction and assembly work—wherever you need portable, efficient power tools.

"Little David" Tools are distinguished by their simplicity, great ruggedness and ability to reduce costs.

Their simplicity means few working parts and few replacements. The tools are easy to handle, require little attention and stand up under long, hard use.

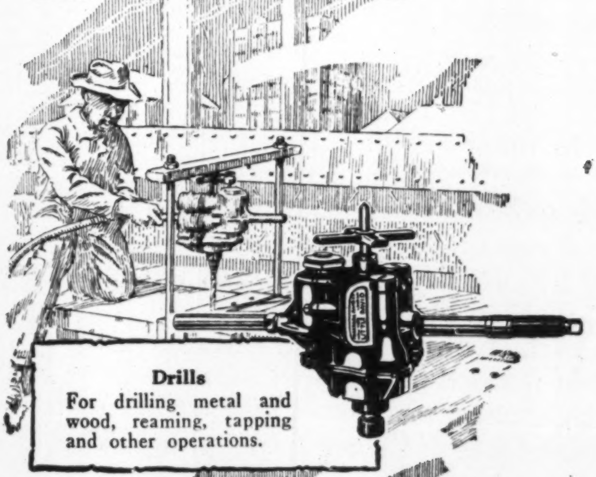
The complete line of air tools includes Riveting and Chipping Hammers, Reversible and Non-Reversible Air Drills and Reamers, Close Quarter Drills, Portable Grinders, Saws, Holders-on, Air Motor Hoists and Stationary Motors, Woodborers and Wire Brush Cleaners.

Ask for Catalog 8000 describing this complete line of modern pneumatic tools

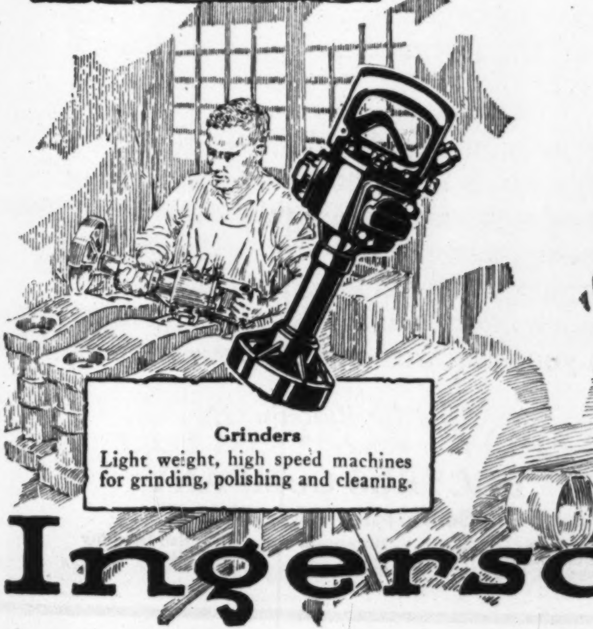
Ingersoll-Rand Company
General Offices: Broadway, New York

Offices Everywhere

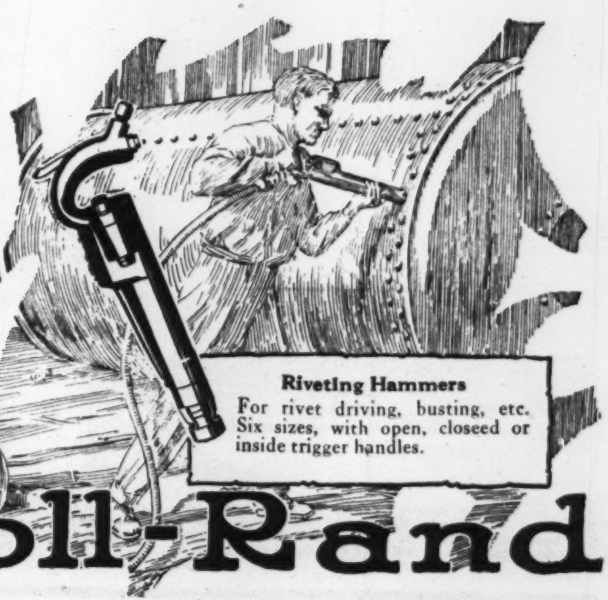
223-PT



Drills
For drilling metal and wood, reaming, tapping and other operations.

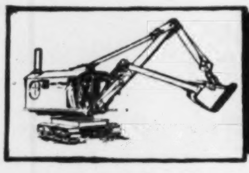


Grinders
Light weight, high speed machines for grinding, polishing and cleaning.

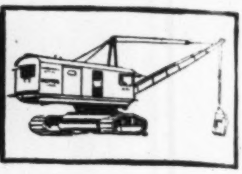


Riveting Hammers
For rivet driving, busting, etc. Six sizes, with open, closeed or inside trigger handles.

Ingersoll-Rand



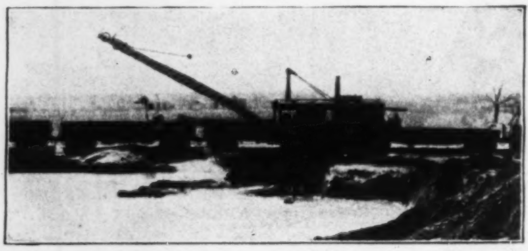
BUCYRUS



Bucyrus dragline stripping a limestone quarry. Cut 10 to 25 feet deep, 100 feet wide, consisting of heavy loam, red clay with flinty boulders and a bottom of solid limestone which was handled after blasting.

Bucyrus electric dragline digging a 25 foot cut on a U. S. Reclamation Project. Note the neatness of the slopes.

Excavating for foundations of a lock entrance wall on a ship canal. The trench is 158 feet wide on the top with a maximum depth of 65 feet, all handled in one cut. The Bucyrus dragline averaged 200 12-yd. cars in ten hours on this job.



Bucyrus dragline digging gravel under 15 feet of water. As high as 1500 cu. yds. have been loaded into cars in 10 hours. The operating expense of the dragline does not equal the pumping costs when the gravel was dug by a shovel in the pit.

What will a dragline do?

The great operating range and unusual flexibility of Bucyrus Draglines adapt them to many types of work. Although the commonest use for dragline excavators is on canal and irrigation ditch excavation, there are many other kinds of work on which a dragline may be used to advantage.

Bucyrus draglines will construct levees as compact and watertight as those built by any other method. Railroad fills can also be built without rehandling, by borrowing the necessary material and dumping direct on the fill. Sand, gravel and clay pits are being successfully stripped and worked by draglines working from the surface of the ground and independent of flooded pit troubles. On canal or ditch excavation the wide reach means fewer moves of the machine, and makes it easy to overcast material far enough from the excavation to eliminate all danger of caving.

These photographs show some of the many kinds of work on which Bucyrus Draglines are operating efficiently. Under the wear and tear of the hardest digging, Bucyrus draglines will stay on the job and move the dirt. Let us figure on your requirements for your next job.

Send for Bulletin GN

BUCYRUS COMPANY
South Milwaukee, Wis.

New York
Birmingham
Portland, Ore.

Minneapolis
Denver
Chicago

Salt Lake City
San Francisco
London, England

Reserve Power

The Clyde Hoist was built originally for logging operations where the unexpected overload is the rule and not the exception.

Reserve power, which at all times gives to the operator a sense of security and satisfaction, becomes a vital necessity in handling logs from stump to mill.

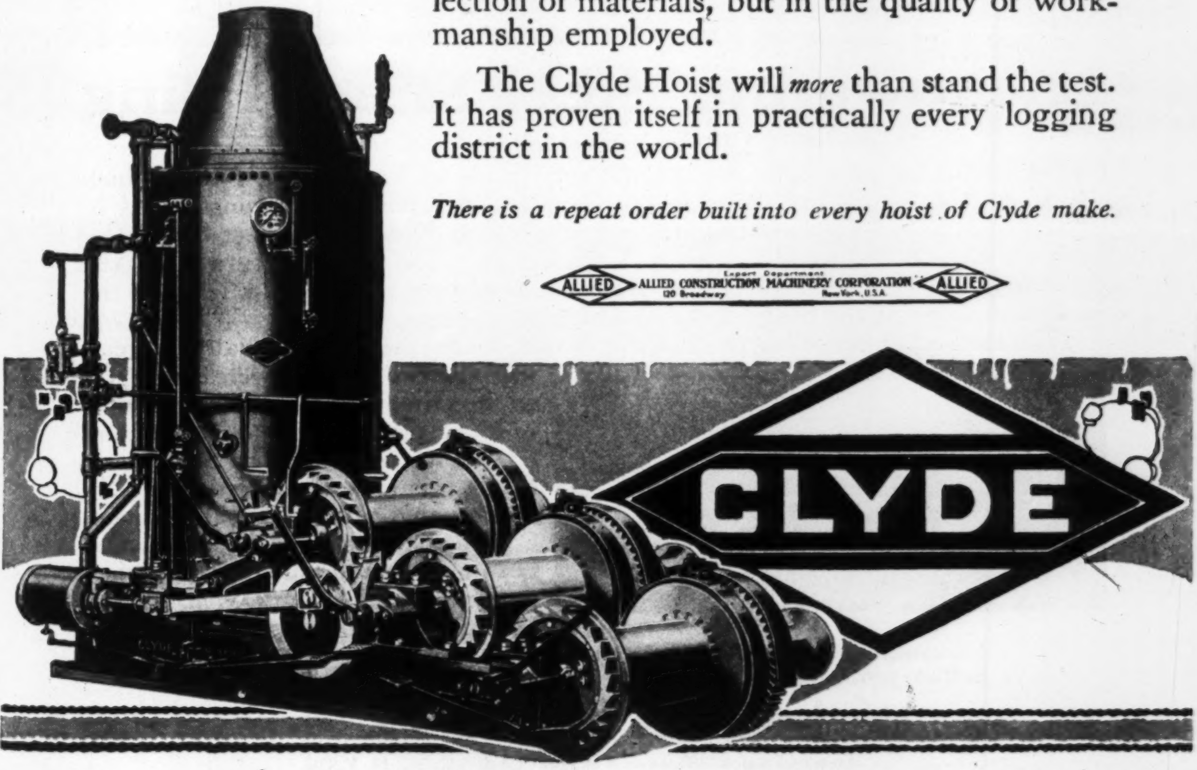
And it is not enough to meet these frequent emergencies.

The location of such operations is usually miles from the source of supply of replacement parts in case of accident. The engine that gives uninterrupted service under adverse conditions must necessarily be built with the utmost care, not only in the selection of materials, but in the quality of workmanship employed.

The Clyde Hoist will *more* than stand the test. It has proven itself in practically every logging district in the world.

There is a repeat order built into every hoist of Clyde make.

ALLIED Export Department ALLIED CONSTRUCTION MACHINERY CORPORATION 120 Broadway New York, U.S.A. ALLIED



CLYDE IRON WORKS SALES COMPANY

DULUTH, MINN., U. S. A.

Sole Distributors for Clyde Iron Works

Branch Offices and Warehouses:

NEW YORK	NEW ORLEANS	SEATTLE	CHICAGO	JACKSONVILLE	PORTLAND
141-149 Centre St.	309 Magazine St.	542 First Ave. So.	11 So. LaSalle St.	507 Hill Bldg.	18th and Upshur Sts.

Lackawanna Steel Sheet Piling

again proves its value to the contractor

THE foundations of the Webster Street Bridge at Tonawanda, N. Y., which spans the New York State Barge Canal at this point, were constructed in cofferdams of Lackawanna 14″ x 3/8″ Arched-Web Steel Sheet Piling by Lathrop, Shea & Henwood Company, Contractors. The above picture shows the cofferdam for the center pier, just previous to placing the concrete, while in the background one of the completed dish abutments is seen.

The method of installing the bracing system for the pier was especially interesting. The two top tiers were constructed in crib form on skids, as shown in lower picture, then launched and floated to position. The Steel Sheet Piling was then assembled vertically around this timber cage and driven.

Although the steel sheet piles had been used in other installations they performed their work well as the appearance of the job indicates.

Lackawanna engineers have data on a great many interesting foundation problems. Their advice is free and is cheerfully given.

Lackawanna Steel Company

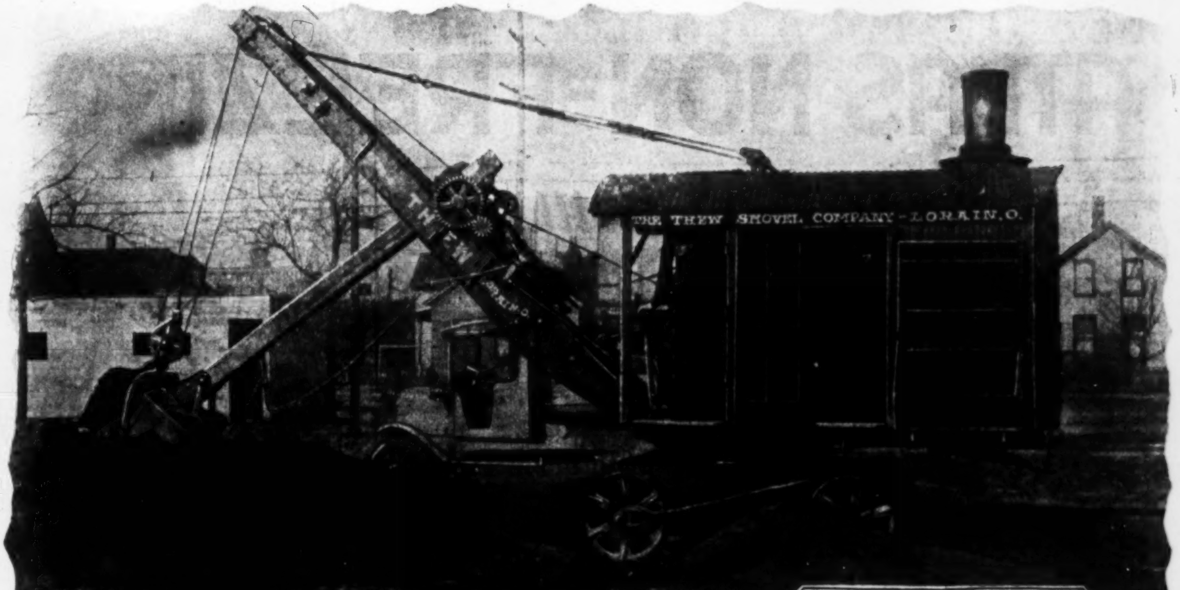
General Sales Offices and Works: Lackawanna, N. Y.

BUFFALO BOSTON CHICAGO CINCINNATI CLEVELAND DETROIT
NEW YORK PHILADELPHIA ST. LOUIS SAN FRANCISCO

Licensees for the manufacture of Lackawanna Steel Sheet Piling:

For Great Britain and British Colonies in the Eastern Hemisphere, Cargo-Fleet-Iron Co., Ltd., Middlesbrough, England. For France, Italy, Spain, French Colonies and Protectorates, Italian Colonies and Spanish Colonies in the Eastern Hemisphere, Cie des Forges & Acieries de la Marine et d'Homecourt, Paris, France.

Sole Exporter for Other Countries: CONSOLIDATED STEEL CORPORATION, 25 Broadway, New York



Profits

HERE'S a type O Thew steadily plugging along through frozen earth.

Which goes to show that the Thew keeps right on working, making profits for its owner, in any season. Extra jobs like this keep down the overhead in off months, but it takes a real shovel to stand the pace.

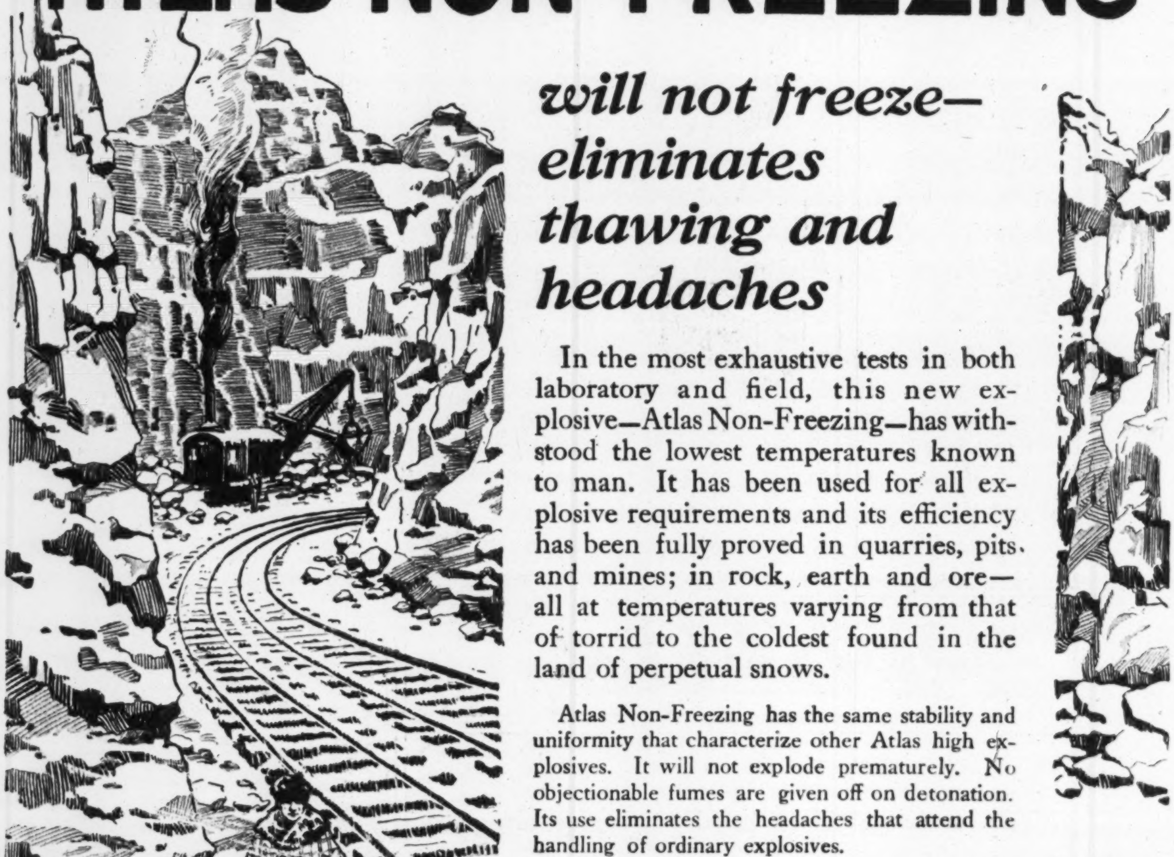
One more reason why you should own a Thew. Write for information.

THE THEW SHOVEL COMPANY
LORAIN, OHIO

EXPORT DEPARTMENT
ALLIED MACHINERY COMPANY OF AMERICA

Thew
Power Shovels

ATLAS NON-FREEZING



will not freeze— eliminates thawing and headaches

In the most exhaustive tests in both laboratory and field, this new explosive—Atlas Non-Freezing—has withstood the lowest temperatures known to man. It has been used for all explosive requirements and its efficiency has been fully proved in quarries, pits and mines; in rock, earth and ore—all at temperatures varying from that of torrid to the coldest found in the land of perpetual snows.

Atlas Non-Freezing has the same stability and uniformity that characterize other Atlas high explosives. It will not explode prematurely. No objectionable fumes are given off on detonation. Its use eliminates the headaches that attend the handling of ordinary explosives.

Atlas Non-Freezing is made in five grades, thus covering all blasting requirements.

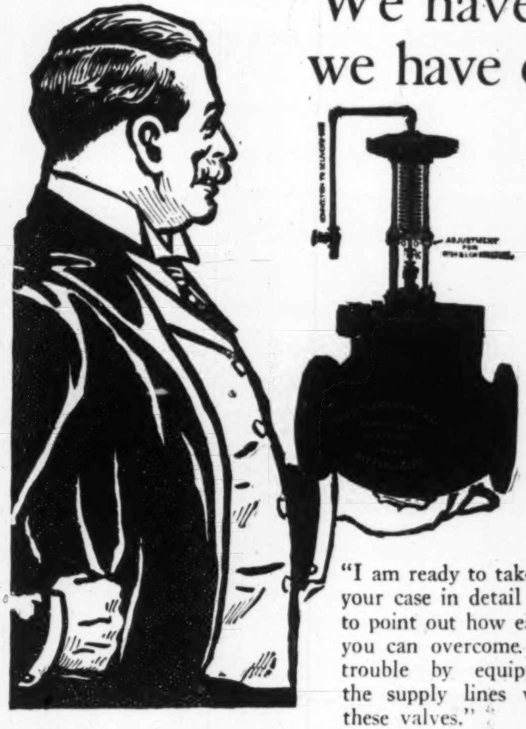
Tell us what explosive you are using now and we will tell you what grade of Atlas Non-Freezing will do the work and save you the inconvenience which attends the use of explosives that are not immune from the effects of cold.

ATLAS POWDER COMPANY
Wilmington, Delaware

Branch Offices:—Allentown, Pa.; Birmingham, Ala.; Boston; Chicago; Des Moines, Ia.; Houghton, Mich.; Joplin, Mo.; Kansas City; Knoxville; McAlester, Okla.; Memphis; New Orleans; New York; Philadelphia; Pittsburg, Kan.; Pittsburgh, Pa.; Pottsville, Pa.; St. Louis; Wilkes-Barre.

NO thawing — NO headaches — NO objectionable fumes

"We have cut out water waste and we have cut out floats and fixtures!"

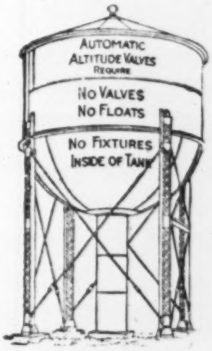


with

GOLDEN-ANDERSON

Patent Automatic Cushioned Controlling Altitude Valves

"THERE is no reason for allowing the preventable waste of water going on down the overflows of your reservoirs, standpipes and tanks at a time when the greatest conservation of the nation's resources are imperative.



"I am ready to take up your case in detail and to point out how easily you can overcome this trouble by equipping the supply lines with these valves."

1—They keep the water level constant in reservoirs, standpipes, tanks, etc., under all conditions.
2—Very simple in design. Contain no floats or fixtures inside or outside of tanks.
3—A perfect cushion by water and air absolutely prevents water hammer surges and broken mains. No metal-to-metal seats.
4—Can be closed in three ways, by hand or automatically by water if a pipe breaks and by electricity from distant points.
5—When desired, can be connected to work "both ways" on a single pipe line.

"Made with Stop-Starter Attachment for Centrifugal Pumps."

Hosts of References

Made with Stop-Starter Attachment for Centrifugal Pumps

GOLDEN-ANDERSON

Automatic Double Cushioned Check Valve

GOLDEN-ANDERSON V.S. CO.
AUTOMATIC DOUBLE
CUSHIONED CHECK VALVE

Automatically prevents disastrous reverse flow of pressure.

Especially adapted for use in discharge line of pump.

No water hammer or shock on reverse flow of pressure cushioned in opening and closing.

Angle and Globe Patterns
Sizes 3 in. to 30 in.

AUTOMATIC
CUSHIONED

GOLDEN-ANDERSON Pat.

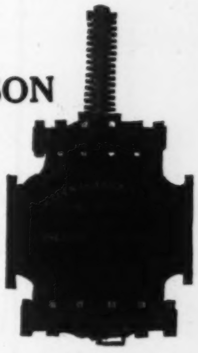
Cushioned-Water Service Valve "For Fire Service"

1—Can be opened and closed instantly from distant points by electricity.
2—Current is on only a few seconds, thereby preventing waste.
3—Can be fitted with either d.c. or a.c. solenoid.
4—Perfectly cushioned by water and air. Positively no metal-to-metal seating.
5—Can be closed by hand.

Sizes to 30 in.

GOLDEN-ANDERSON

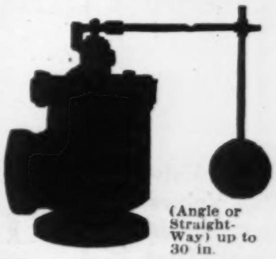
Pat. Automatic-Cushioned Water Pressure Reducing Valves



1—Maintain a constant terminal water pressure under all conditions.
2—Positively cushioned by water and air in opening and closing.
3—Valve closes slowly, eliminating all shock and water hammer.
4—Can be furnished with electric feature to open valve to full area from distant points. Sizes to 30 in.

Golden-Anderson Pat. Automatic Float Valves

1. Accurately control the water in open tanks, hot wells, reservoirs, etc., between two fixed limits.
2. Cushioned by both water and air. No metal-to-metal seating, pounding, sticking or chattering.
3. Can be regulated to operate quickly or slowly on High or Low pressures. Float swivels to any angle desired.
4. Construction, Heavy Iron Body Bronze Mounted. Virtually indestructible, due to service.



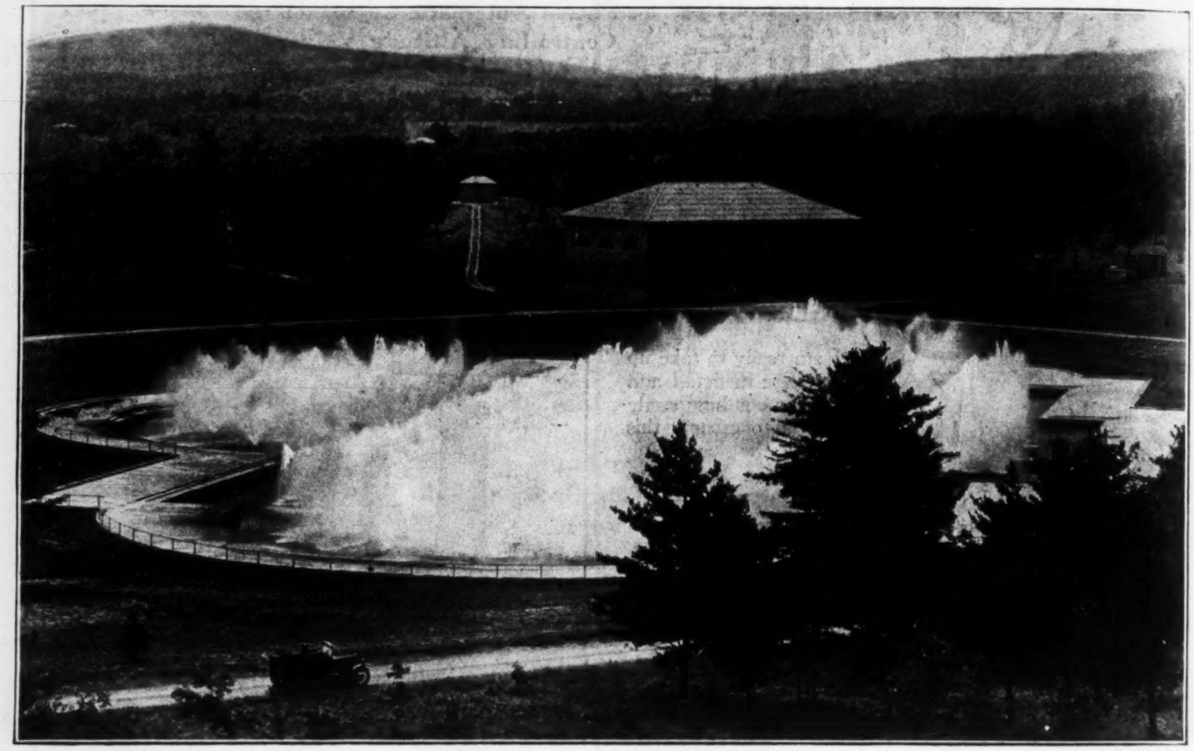
(Angle or Straight-Way) up to 30 in.

Golden-Anderson Valve Specialty Company

1202 Fulton Building, Pittsburgh, Pa.

COFFIN VALVE COMPANY,

Makers of the Largest Sluice and Gate Valves in America



Out of 14 contracts for Valves for the Catskill Aqueduct we have been awarded six. This means more than $500,000 worth of equipment for the water supply of New York City

Office and Works: Neponset, Suburb of

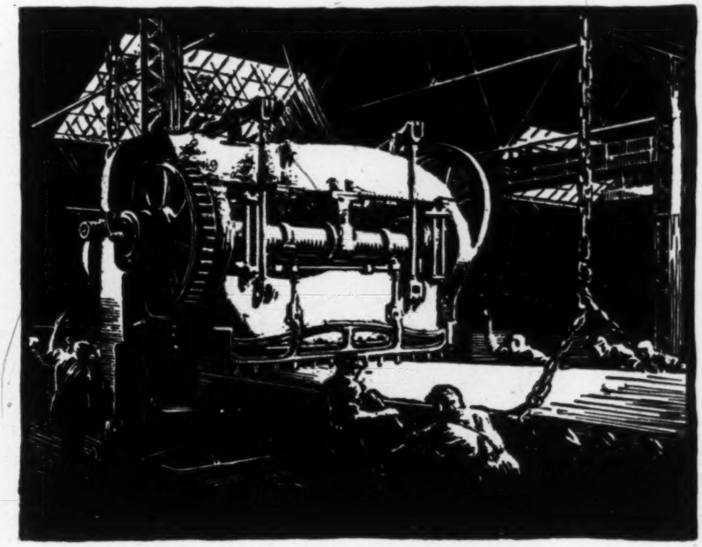
BOSTON, MASS.,

Check Valves
Flap Valves
Foot Valves
Sewer Gates

Sluice Gates
Gate Valves
Butterfly Valves
Fire Hydrants

REPRESENTATIVES:

New York City C. W. Bergen & Co., 256 Broadway.
Philadelphia, Pa.: DeHuff & Hopkins, Morris Building.
Cleveland, Ohio: Tomlinson Steam Specialty Co., 1597 St. Clair Ave.
San Francisco, Cal.: Theo F. Dredge, Monadnock Building.
Chicago, Ill.: Whitney & Ford, 4325 Cottage Grove Ave.
Toronto, Ont.: The Arthur S Leitch Co., Ltd., 1001 Kent Building.



Equipped to Serve

THE Plate shear shown in the illustration will cut plates up to 60 inches wide by 1½ inches thick at one stroke. Ryerson saws cut the largest beams in seconds.

These machines are typical of the modern equipment in use in every department; in fact, nothing is overlooked that will make for quick service.

If you want steel in a hurry, depend upon Ryerson Steel-Service.

Write for Ryerson Stock List
—the key to Immediate Steel

ESTABLISHED 1842 INCORPORATED 1888

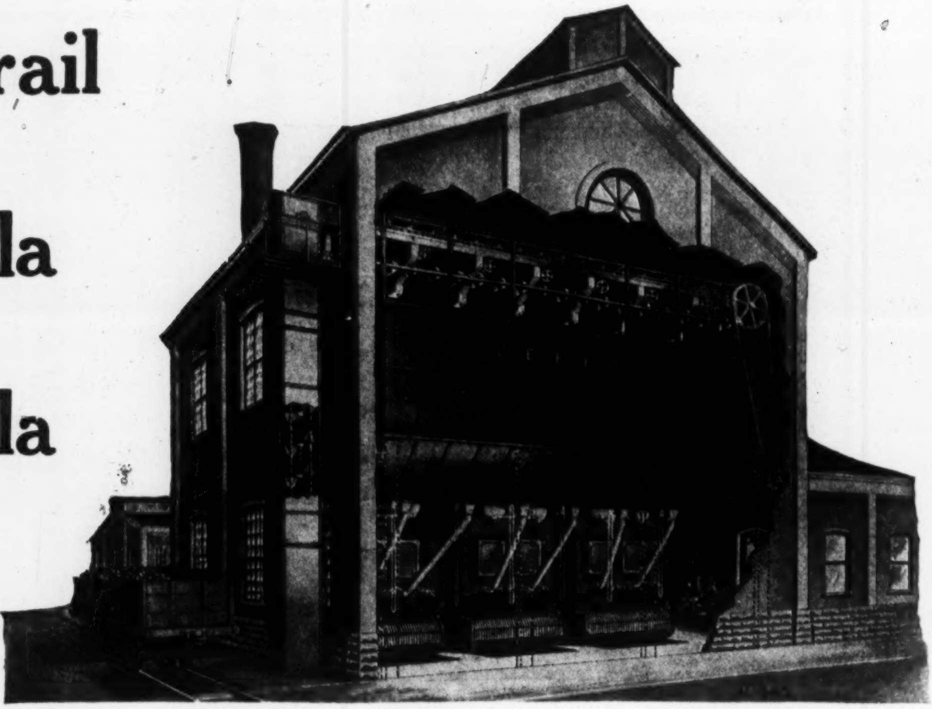
JOSEPH T. RYERSON & SON

CHICAGO ST. LOUIS DETROIT BUFFALO NEW YORK

BRANCH OFFICES DENVER HOUSTON JERSEY CITY
MILWAUKEE MINNEAPOLIS NEWARK SAN FRANCISCO

RYERSON STEEL-SERVICE

The Trail from Gondola to Gondola



At this plant coal is handled by Jeffrey Track Hopper, Single Roll Crusher and V-Bucket Elevator Conveyer to Bunkers. Ashes are handled to Skip Hoist.

In Large or Small Power Plants

JEFFREY EQUIPMENT

will automatically and economically handle coal and ashes.

It is so standardized and built in various types and sizes that every plant can be accommodated. The coal passes from hopper to crusher, to conveyer and bunkers, and ashes pass from pit to conveyer or skip hoist to bin or railroad car.

Tell our Engineering Dept. about your local conditions, and they will gladly suggest efficient equipment and assist you in the solution of your coal and ashes handling problems.

Jeffrey Coal and Ashes Handling Equipment includes Track Hoppers; Crushers; Elevators; Conveyers; Weigh Hoppers; Skip Hoists; Portable Bucket Loaders; Portable Car Unloaders for handling coal from hopper bottom cars, etc.

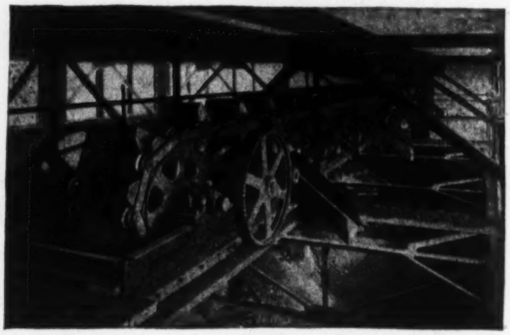
The Jeffrey Mfg. Co., Columbus, Ohio

New York
Boston
Philadelphia
Scranton
Buffalo

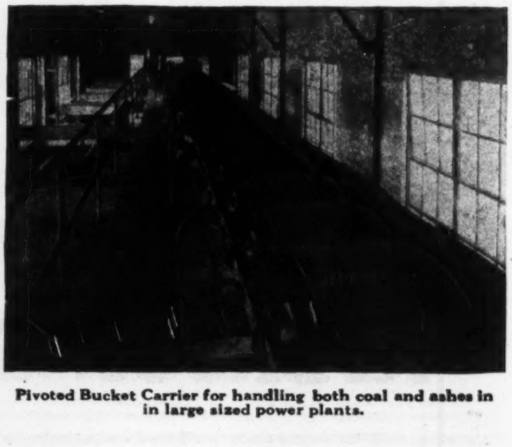
Pittsburgh
Cleveland
Charleston, W. Va.
Chicago

St. Louis
Detroit
Birmingham
Middlesboro, Ky.

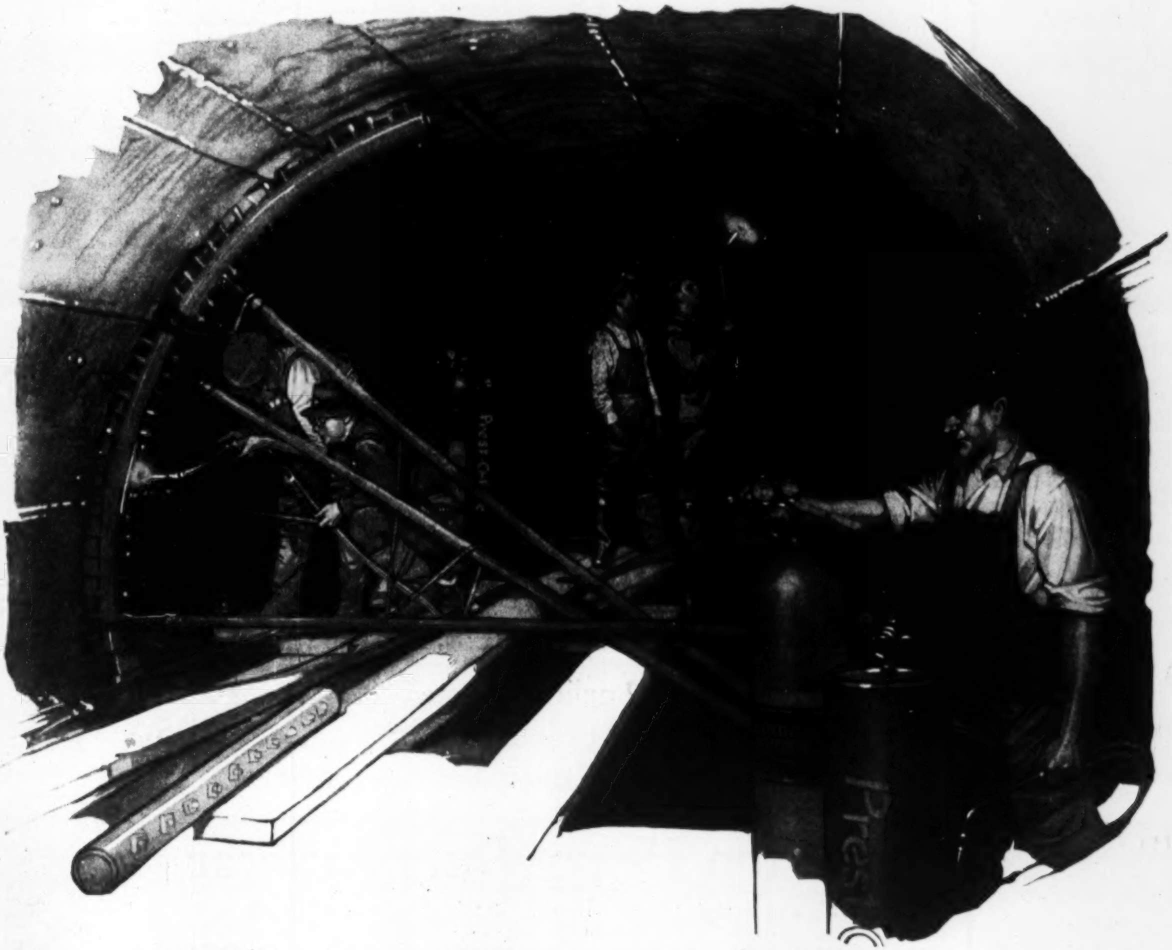
Dallas
Milwaukee
Denver
Los Angeles
Montreal



V-Bucket Conveyer especially adapted for handling slack and stoker sized coal.



Pivoted Bucket Carrier for handling both coal and ashes in in large sized power plants.



Two miles of seamless copper tube a hundred feet underground!

The job illustrated—that of lining two miles of the Catskill Aqueduct with copper—shows in a compelling manner the extreme portability of

Prest-O-Lite

DISSOLVED ACETYLENE

Without gas—ideal for both welding and cutting - in such conveniently transportable containers — the oxy-acetylene process would lose much of its usefulness.

Whether the work be at the top of a sky-scraper or deep under the surface, indoors or out — Prest-O-Lite goes to the job!

A nation-wide service built around forty plants and warehouses insures a constant and prompt supply of Prest-O-Lite.

THE PREST-O-LITE COMPANY, Inc.
General Offices: Carbide and Carbon Building, 30 East 42nd Street, New York
Balfour Building San Francisco
In Canada: Prest-O-Lite Co. of Canada, Limited, Toronto

PW-504-31

We are ready
1922
New Models—New Prices
Effective January 3d

Standard 1½-2 ton Autocar
Overall capacity, 11,000 lbs. (Chassis, body and load)

Type F, 97-in. wheelbase, 2 cylinder motor	$1950
Type G, 120-in. wheelbase, 2 cylinder motor . . .	$2050

Unladen Chassis weight: Type F, 3600 lbs.; Type G, 3700 lbs.

New 2 ton Heavy Duty Autocar
Overall capacity, 14,000 lbs. (Chassis, body and load)

Type H, 114-in. wheelbase, 4 cylinder motor . . .	$2950
Type K, 138-in. wheelbase, 4 cylinder motor . . .	$3075

Unladen Chassis weight: Type H, 5200 lbs.; Type K, 5350 lbs.

New 5 ton Heavy Duty Autocar
Overall capacity, 22,000 lbs. (Chassis, body and load)

Type Y, 120-in. wheelbase, 4 cylinder motor . . .	$3950
Type B, 156-in. wheelbase, 4 cylinder motor . . .	$4100

Unladen Chassis weight: Type Y, 7200 lbs.; Type B, 7400 lbs.

THE AUTOCAR COMPANY, Ardmore, Pa., Established 1897

Autocar
Wherever there's a road

OFFICIAL PROPOSALS

Bids: **Jan 4**

Barge Canal Terminals

Albany, N. Y.

NOTICE TO CONTRACTORS: Sealed proposals will be received by the undersigned at his office in the Capitol at Albany, N. Y., until twelve o'clock noon of Wednesday, January 4th, 1922, at which place and hour they will be publicly opened and read, for the construction of barge canal terminals pursuant to the provisions of Chapter 746 of the Laws of 1911, and amendatory laws, and Chapter 176 of the Laws of 1921, as follows:

TERMINAL CONTRACT NO. 120

For furnishing, instaling and testing two two-ton, electric, overhead, wharf cranes at Rochester.

Contract plans, sheet 1.

Plans may be seen and detailed specifications, engineer's estimates of quantities, proposal blanks, forms of contracts and bonds required and other information for proposers may be had at the office of the Superintendent of Public Works at Albany, N. Y., the office of the Assistant Superintendent of Public Works for the Middle Division at Syracuse, N. Y., at the office of the Assistant Superintendent of Public Works for the Western Division at Rochester, N. Y., at the office of the Superintendent of Public Works, Erie Basin Terminal, Buffalo, N. Y., and Terminal Warehouse, Pier 6, East River, New York City.

Copies of detailed plans or drawing may be obtained from the State Engineer and Surveyor at Albany, N. Y., upon payment to him of the cost of producing them.

Monthly estimates will be paid of ninety per centum (90 per cent) of the work done at the contract price. Every proposal for said work must be accompanied by a money deposit in the form of a draft or certified check upon some good banking institution in the city of Albany, or New York, issued by a national or state bank or trust company in good credit within the state and payable at sight to the Superintendent of Public Works for five per centum (5 per cent) of the amount of the proposal.

The person whose proposal shall be accepted will be required to execute a contract and furnish bonds within ten days from the date of notice of award delivered to him or them in person or mailed to the address given in the proposal.

Upon execution of the contract and approval of bonds, the certified check or draft will be returned to the proposer unless the same shall have been presented for collection prior to such time in which case the amount of the deposit will be refunded by the Superintendent of Public Works.

The deposits of bidders other than the one to whom the award of contract shall be made will be returned immediately after the award has been made.

The bond required for the faithful performance of the contract shall be in such sum as shall be fixed by the Superintendent of Public Works, which sum shall not be less than twenty per centum (20 per cent) of the estimated cost of the work, according to the contract price, and an additional bond, known as the labor bond, in the sum of ten per centum (10 per cent) of the amount of the estimated cost of the work according to the contract price, will be required as security that the contractor will pay in full at least once in each month all laborers employed by him upon the work specified to be done in the contract.

In the event that more than one surety company is offered as surety on said bonds co-insurance only will be accepted.

Each proposal must be addressed to the Superintendent of Public Works, Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made.

Award, if made, will be made to the person or persons whose proposal shall be lowest in cost to the state for doing the work, and which shall comply with all provisions required to render it formal. Before any award shall be made the lowest bidder will be required to satisfy the Superintenent of Public Works of his ability to provide suitable equipment and materials for the proper performance of the work.

The right is reserved to reject all proposals and readvertise and award the contract in the regular manner if, in the judgment of the undersigned, the interests of the state will be enhanced thereby.

CHARLES L. CADLE,
Superintendent of Public Works.

OFFICIAL PROPOSALS

Bids: **Jan. 11.**

Artesian Well

Central Islip, N. Y.

NOTICE TO CONTRACTORS: Sealed proposals for artesian well for additional water supply at South Colony Power Plant, Central Islip State Hospital, Central Islip, N. Y., will be received by the State Hospital Commission, Capitol, Albany, N. Y., until 3 o'clock p.m. on Wednesday, January 11, 1922, when they will be publicly opened and read. Proposals shall be enclosed in an envelope furnished by the State Architect, sealed and addressed, and shall be accompanied by a certified check in the sum of five per cent (5%) of the amount of the proposal. The contractor to whom the award is made will be required to furnish surety company bond in the sum of fifty per cent (50%) of the amount of contract within thirty (30) days after official notice of award of contract and in accordance with the terms of Specification No. 3523. The right is reserved to reject any or all bids. Drawings and specifications may be examined and inspected at the Central Islip State Hospital, Central Islip, N. Y., at the New York Office of the Department of Architecture, Room 618, Hall of Records Building, and at the Department of Architecture, Capitol, Albany, N. Y. Drawings, specifications and blank forms of proposal may be obtained at the Department of Architecture, Capitol, Albany, N. Y., upon reasonable notice to and in the discretion of the State Architect, L. F. Pilcher, Capitol, Albany, N. Y.

L. M. FARRINGTON,
Secretary, State Hospital Commission.
Dated: Dec. 10, 1921.

Bids: **Jan. 13.**

PUBLIC SALE
By order of the Harbor Commissioners

For a Lease of Pier

Walnut Street Pier, Camden, N. J.,
For a term of one, three or five years from
January 15, 1922,
ON FRIDAY, JANUARY 13, 1922,
at 8 P.M.
Room 11, City Hall, Camden, N. J.
Bids will be received for said lease.

Bidders to state term bid on, also annual rental to be paid. Commission may require lessee to give bond with satisfactory surety for faithful performance of lease. It reserves the right to reject any or all bids as may be best for City's interests.

A certified check for $100.00 to order of City of Camden is to accompany each bid, check to be returned on execution of lease or rejection of bid. Copies of lease mailed on application and other information as to equipment can be had from Mr. William D. Sayrs, Jr., Harbor Engineer, Room 11, City Hall, Camden, N. J.

Address proposals to Mr. George W. Bradley, Chairman of Board of Harbor Commissioners Room 11, City Hall, Camden, N. J.

Dated December 10th, 1921.

Bids: Jan. 10.

Highway Work

Albany, N. Y.

Sealed proposals will be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock P.M., on TUESDAY, the 10th day of JANUARY, 1922, for the improvement of highways in the following counties:

Albany, one highway, 5.89.
Allegany, one highway, 5.01.
Dutchess, one highway, 1.33.
Franklin, one highway, 7.50.
Genesee, one highway, 2.10.
Orange, one highway, 2.75.
Orleans, one highway, 2.25.
Schoharie, two highways, 3.94 and 10.33.
Sullivan, one highway, 5.69.

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the office of the division engineers in whose division the roads are to be improved. The addresses of the division engineers and the counties in which they are in charge will be furnished upon request.

The especial attention of bidders is called to "General Information for Bidders" in the itemized proposal, specifications and contract agreement.

HERBERT S. SISSON,
Commissioner.
J. C. FINCH,
Secretary.

OFFICIAL PROFOSALS

Bids: **Jan. 17.** (Date extended.)

Garbage Incinerator

New Orleans, La.

Sealed proposals will be received at this office until the hour of 11 o'clock a.m., Wednesday, January 4th, 1922, for furnishing labor, materials and equipment, and constructing in accordance with the plans and specifications on file in the office of the City Engineer, any or all of the following pieces of work:

(1) Foundations and building complete, including piling.

(2) Radial brick chimney 150 feet by 6 feet complete on foundation furnished.

(3) Furnishing and installing of Incinerator equipment of the Decarie type, including electric travelling crane and electric generating equipment complete.

A certified check for an amount equal to 10% of the total amount bid in the proposal, payable to the undersigned Commissioner of Public Finances, or a bidder's bond for the same amount, must accompany each proposal.

Bond required: Equal to the total amount of contract.

The City Engineer will furnish bidders with a blank form of proposal. No proposal will be considered unless submitted on such form, and the bid price shall be expressed in both writing and figures, and enclosed in a sealed envelope marked "Proposal for Incinerator" addressed to the Commissioner of Public Finances of the City of New Orleans.

Bidders must have paid their City License in order that their bids may be accepted.

The successful bidder must enter into contract at his expense before the City Notary.

Copies of the plans and specifications now on file, as well as proposal blank forms, may be had at the office of the City Engineer upon the deposit of $50.00, which amount will be refunded if the plans and specifications are returned in good condition within ten (10) days after the opening of bids.

The City reserves the right to reject any and all bids.

R. M. MURPHY,
Commissioner of Public Finances.
City Hall, New Orleans, La.

Bids: **Jan. 9.**

Paving

Elmhurst, Ill.

The City of Elmhurst, Illinois, will open bids on January 9, 1922, for the construction of Bituminous Macadam Pavement with concrete curb and gutter, necessary grading and sewer work.

The estimated cost of the work is $115,000, and the quantities approximately as follows:

21,000 lineal feet of concrete curb and gutter.
55 catch basins adjusted.
12 new brick catch basins.
35 manholes adjusted.
6,000 square feet of concrete sidewalk.
16,000 cubic yards of grading.
25,000 square yards of bituminous macadam pavement.

Plans, specifications and bidding blanks can be obtained at the office of the Engineer.

EDWIN HANCOCK,
Engineer.
2047 Ogden Ave., Chicago, Illinois.

Bids: **Jan. 3.**

Portland Cement

Richmond, Va.

Sealed proposals will be received at this office until 12 o'clock Noon, January 3, 1922, for the furnishing and of prompt delivery to any part of the City—40,000 barrels of Portland Cement; to be let in two separate items as follows:

20,000 barrels for sewers.
20,000 barrels for paving.

Contract terminating January 1, 1923.

Forms of proposals can be obtained on application.

A certified check for amount stated ($1,000.00) on proposals must accompany each bid as a guaranty of execution of contract. The Director of Public Works reserves the right to reject any and all bids.

ALLEN J. SAVILLE,
Director of Public Works.

OFFICIAL PROPOSALS

Bids: Feb. 7.

Hudson River Vehicular Tunnel

—CONTRACTS NOS. 3 AND 4—NEW YORK STATE BRIDGE AND TUNNEL COMMISSION AND NEW JERSEY INTERSTATE BRIDGE AND TUNNEL COMMISSION.

New York, N. Y.

As set forth in the invitation to Contractors, sealed proposals for the construction of the Vehicular Tunnel under the Hudson River from Canal Street, New York City, to 12th Street, Jersey City, will be received at the offices of the New York State Bridge and Tunnel Commission and the New Jersey Interstate Bridge and Tunnel Commission, Room 617, Hall of Records, Borough of Manhattan, New York City, until the seventh day of February, 1922, at 3:00 o'clock p.m., Eastern Standard Time, at which time or at a later date the proposals will be publicly opened.

Contract No. 3 is for the construction of two cast-iron tunnels between the Canal Street and Spring Street shafts, New York City, and a point about six hundred (600) feet west of the New York pierhead line, and sinking a shaft caisson near the New York pierhead line.

Contract No. 4 is for the construction of two cast-iron tunnels between a point one thousand (1,000) feet west of the river bulkhead near the line of 12th Street, Jersey City, and a point about six hundred (600) feet west of the New York pierhead line, and sinking four caissons—two inside the bulkhead line and two near the pierhead line.

Proposals must be in the form and on the blanks prescribed by the Commissions and must be accompanied in the case of Contract No. 3 by two certified checks for One Hundred Twenty-Five Thousand Dollars ($125,000) each and two consent bonds for One Million Dollars ($1,000,000) each, and in the case of Contract No. 4 by two certified checks for One Hundred Fifty Thousand Dollars ($150,000) each and two consent bonds for One Million Dollars ($1,000,000) each.

The tunnels will be driven under compressed air by the shield method, and the shafts are to be sunk as caissons under compressed air. The contract time is thirty-six (36) months.

Attention is called to the form prescribed by the Commissions for bidders on the two contracts in that they are invited to bid under either or both of two forms in each contract. In Form "A," the bidder is to state his price for the work proposed without dependence upon the award of the other contract. In Form "B," the bidder is to state his price for the work proposed in case he should also be awarded the other contract. The proposal in Form "B," in order to be valid, must be made in the proposals for both contracts.

Plans, form of proposal, contract and specifications may be obtained by prospective bidders from C. M. Holland, Chief Engineer, Room 614, Hall of Records, New York City. A payment of Five Dollars ($5.00) for each contract will be required.

The Commissions reserve the right to reject any and all bids.

T. ALBEUS ADAMS,
Chairman, New Jersey Interstate Bridge and Tunnel Commission.

GEORGE R. DYER,
Chairman, New York State Bridge and Tunnel Commission.

Arms Limitation—
Less Taxation—
Less Destruction—
More Construction—
You'll get your share—
More CONTRACT BONDS.
SWART SERVICE
REALLY SERVES
Harmon V. Swart
92 William St., New York

OFFICIAL PROPOSALS

Bids: Jan. 16.

Reinforced Concrete Bridge

Norristown, Pa.

Sealed proposals will be received by the Controller of Montgomery County, at the Court House, Norristown, Pa., up until 11 o'clock a.m., January 16, 1922, at which time they will be publicly opened, for the furnishing of all materials, labor, tools and machinery necessary for the building of a three-span reinforced concrete bridge, over the Schuylkill River between Royersford and Spring City in Montgomery and Chester Counties, Pa., in accordance with plans and specifications now on file at the office of the Clerk of the County Commissioners of Montgomery and Chester Counties.

Prospective bidders may obtain plans and specifications by depositing $10.00 with the Clerk of the County Commisioners at Norristown, Pa.

Each bidder must use the form of proposal attached to and forming a part of the specifications.

A certified check for $5,000.00 must be deposited with the Clerk of the County Commissioners of Montgomery County, one hour before the time set for the opening of the bids, as a guarantee of good faith and to protect the counties from any loss by failure to comply with the terms of the proposal.

The right is reserved to reject any or all bids.

HORACE W. SMEDLEY,
Controller
of Montgomery County.
GEORGE S. DEWEES,
Controller
of Chester County.

Bids: Jan. 3.

Highway Work

Gastonia, N. C.

The Gaston County Commissioners will receive bids up to Tuesday, Jan. 3rd, for the construction of 8 miles of hard surface highway consisting of 56,000 square yards of pavement. This work will consist of reconstructing an old macadam road and the construction of a wearing surface of either the three types. Asphaltic Concrete (Topeka Mix), Asphaltic Macadam (Penetration) or binder course 1-1½. Each bid must be accompanied with a certified check equal to 5% of amount bid, sealed and addressed to County Commissioners, Gaston County and marked Proposal to construct Dallas Road. Surety Bond to the amount of 50% of the contract will be required. Plans and Specification may be obtained from the Highway Engineer, Gaston County, Gastonia, N. C., upon payment of $2.50.

D. L. STRUTHERS,
Highway Engineer.

U. S. GOVERNMENT

PROPOSALS FOR COMPLETION POWER PLANT.—Office of Constructing Quartermaster, Frankford Arsenal, Philadelphia, Pa.—Sealed proposals will be received here until 2 p.m., February 8, 1922, and then opened, for the Completion of Power Plant, including installation of equipment. Plans and specifications will be furnished upon receipt of a deposit of Ten Dollars ($10.00).

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., Dec. 21, 1921.—Sealed proposals will be opened in this office at 3 p.m., Jan. 18, 1922, for construction (except mechanical equipment) of seven buildings, for the United States Public Health Service Hospital, at Augusta, Ga. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

U. S. GOVERNMENT

U. S. ENGINEER OFFICE, MOBILE, ALA., Dec. 12, 1921. Sealed proposals will be received here until 11 o'clock A. M., January 20, 1922, and then opened for dredge pontoon catamarans with discharge pipe for the U. S. 20-inch hydraulic dredge Wahalak. Further information on application.

U. S. ENGINEER OFFICE, JACKSONVILLE, FLA.—Sealed proposals will be received here until 12 M., Jan. 12, 1922, and then opened for dredging and rock removal in Sarasota Bay, Fla. Information on application.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., December 15, 1921. SEALED PROPOSALS will be opened in this office at 3 p. m., January 12, 1922, for new hot water piping, etc., in the United States Mint, Philadelphia, Pa., in accordance with specification and drawing, copies of which may be had at this office or at the office of the Custodian, Philadelphia, Pa., in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

U. S. ENGINEER OFFICE, 815 Witherspoon Bldg., Philadelphia, Pa. Bids are wanted until January 19, 1922, for dredging in Delaware River in front of Camden, N. J. Further information on application.

SEALED PROPOSALS, indorsed "Proposals for Post Exchange and Dispensary, San Diego, Calif., Special No. 4527," will be received at the Bureau of Yards and Docks, Navy Department, Washington, D. C., until 11 o'clock a.m. Jan. 18, 1922, and then and there publicly opened, for post exchange and dispensary buildings, which will be supported by concrete piles furnished in place by the Government and will have reinforced concrete frames and reinforced concrete and tile floors; composition and tile flooring; tile and asphalt and gravel roofing; plastered, hollow-tile walls and partitions; plastered steel-stud partitions; wood doors and sash; and complete heating, plumbing and lighting systems, all at the Naval Base (Marine Corps Base), San Diego, Calif. Drawings and Specification No. 4527 may be obtained on application to the Bureau or to the Commandant, Eleventh Naval District, Naval Base, San Diego, Calif. Deposit of a check or postal money order for $30, payable to the Chief of the Bureau of Yards and Docks, is required as security for the safe return of the drawings and specification. C. W. Parks, Chief of Bureau, November 30, 1921.

Many contractors depend
entirely upon the
OFFICIAL PROPOSAL
COLUMNS
of
Engineering News-Record
for Opportunities to bid.

They might not see your announcements if printed elsewhere.

You undoubtedly want their bids on your contracts. Make sure of them on your next contract.

The cost is only 40 cents a line per issue.

0309

CONTRACT BONDS FOR RESPONSIBLE CONTRACTORS
Tell the Ætna engineers about your special facilities for completing the contract.
ÆTNA CASUALTY AND SURETY COMPANY
HARTFORD, CONN. AGENTS EVERYWHERE

ENGINEERING NEWS-RECORD

Think "SEARCHLIGHT" First

ADVERTISING RATES

POSITIONS VACANT—Business Opportunities and other undisplayed ads, 8 cents a word, minimum $2.00 an insertion.

POSITIONS WANTED—Evening work wanted, tutoring and other undisplayed ads of individuals looking for employment, 4 cents a word, minimum 75 cents, **payable in advance.**

ADD 5 WORDS for box number in undisplayed ads if replies are to any of our offices. There is no extra charge for forwarding replies.

DISCOUNT OF 10% if one payment is made in advance for 4 consecutive insertions of undisplayed ad.

ADS IN DISPLAY TYPE—Space is sold by the inch (30 in. to a page), the price depending upon total space used within a year, some space to be used each issue.

RATE PER INCH for ads in display space:

1 to 3 in., $5.00 an in.
4 to 7 in., $4.80 an in.
8 to 14 in., $4.70 an in.
15 to 49 in., $4.60 an in.
50 to 99 in., $4.40 an in.
100 to 199 in., $4.30 an in.

POSITIONS VACANT

EMPLOYMENT

POSITIONS WANTED

POSITIONS VACANT

CORRESPONDENCE desired with state road superintendents, foremen for quarry, grade, concrete and asphalt. Also steam roller engineers, steam shovel engineers, and stone crusher operators. Many positions open every spring. New York State Road Builders' Association, Room 604, Journal Building, Albany, N. Y.

INSTRUCTOR, graduate, mechanical engineer preferred, with good training in mechanics and mathematics, to teach hydraulics, mechanics of materials and laboratory. To begin February 1. State experience and salary desired. F. P. McKibben, Schenectady, N. Y.

MACHINERY salesman with thorough acquaintanceship in the trade in New York City and vicinity for position as manager of heavy machinery branch house. Only men of highest grade, technically trained, considered. P-539, Eng. News-Record.

STRUCTURAL steel and reinforced concrete detailers and designers. Give experience in detail, age, nationality, married or single, and how soon can report. Apply Southern Engineering Company, Charlotte, N. C.

STRUCTURAL steel detailers and checkers wanted for office and mill buildings, schools and stores. Location Southwest. Give full information first letter, including experience in detail, salary expected. Also nationality and state when could report. Experienced men only considered. All replies confidential. P-555, Eng. News-Record, Old Colony Bldg., Chicago, Ill.

WANTED: civil engineer and superintendent of Streets, in New England town of 30,000. State age, education, experience, references and salary expected. P-568, Eng. News-Record.

EMPLOYMENT SERVICE

EXECUTIVES qualified for salaries of $2,500 to $25,000 and upward, are invited to communicate confidentially with the undersigned, who will conduct preliminary negotiations for such positions. A procedure is used which places you in the position of being approached, avoids jeopardizing present connections, and conforms to the most exacting personal and ethical requirements. Of particular advantage as a test of conditions, to determine the advisability of changing. Details mailed confidentially on receipt of name and address only, without obligating or committing you in any way. Established 1910. R. W. Bixby, Inc., 304 Lockwood Building, Buffalo, New York

EMPLOYMENT AGENCIES

EXECUTIVES. Confidential negotiations conducted with tact and dignity for professional positions. Engineering and administrative executives are courteously invited to send name and address only for literature describing my direct, successful method. Charles Clark P. O. Box 141, Newark, N. J.

EXECUTIVES

seeking positions find our confidential service extremely satisfactory. Let our Mr. H. H. Harrison confidentially negotiate for you suitable positions with proper employers, as he has successfully done for thousands of others since 1909. Inquiries invited.

THE NATIONAL BUSINESS BOURSE
Confidential Negotiators
Association Building—Chicago

Higher ENGINEERING (By Mail)

High grade courses prepared especially for the young engineer who needs experience, and for older men who need to "brush up."

Reinforced Concrete Engineering
(the design and estimating of quantities)
Structural Steel Designing and Estimating
Concrete Drafting and Estimating
BRIDGE ENGINEERING
(specify if this course is intended)

If you are in need of help in this line, get our printed literature; it contains complete information not only about the courses, but about the ability of their author. A lifetime of varied experience is embodied in these courses. Make use of it.

Educational requirements: technical education, high school mathematics or their equivalent.

WRITE TODAY

WILSON ENGINEERING CORPORATION
10 Broadway, Hanover, Mass.

POSITIONS WANTED

Civil Engineers

CIVIL engineer, graduate, six years' railroad and highway experience, available. PW-557, Eng. News-Record, Chicago, Ill.

CIVIL engineer, graduate, 30, two years surveying and drafting; three years in charge of railway location and construction; two years exporting to Latin America. Expert Spanish correspondent. Executive ability. Desires permanent position. PW-564, Eng. News-Record.

Surveyors

YOUNG engineer, four years' varied experience, college man, wants job on hydro-electric preliminary survey with opportunity of seeing the job through from start to finish. Position, salary and location immaterial. PW-502, Eng. News-Record.

Draftsmen and Designers

DRAFTSMAN with ten years steel detailing experience, buildings, conveyors; desires position New York City, commuting distance. PW-552, Eng. News-Record.

PRATT INSTITUTE

BROOKLYN, N.Y.

EVENING COURSES IN

STRENGTH OF MATERIALS
STRUCTURAL DRAFTING
STRESSES IN STRUCTURES
STRUCTURAL DESIGN
GRAPHICS

Information on request or call at Pratt Institute, Grand Ave. Entrance between DeKalb and Willoughby Ave's. Monday, Tuesday or Thursday Evenings after Jan. 2.

Construction Men

Learn "Line" and "Grade" by Actual Practice.

Level, Transit, and Plane Table Work. "Running" of Farm, Stadia, Highway and Railroad Surveys.

Estimating

Day and evening courses. Booklet.

The Pan-American Engineering Society
39 West 17th St., New York City

POSITIONS WANTED

STRUCTURAL designer, detailer, 11 years' designing, detailing various buildings, bridges, industrial plant layout. Coal handling a specialty. PW-520, Eng. News-Record.

Superintendents

CONSTRUCTION superintendent wishes position, 20 years' experience sewers, water works, foundations, reinforced concrete, industrial plant construction, who has great faith in the future of concrete road and highway bridge construction, wants to get in that line with a first class firm. Salary to be gaged by my ability to make good. Job must be year around proposition. Seven years present location. East preferred, New York or Philadelphia. Interview. Available Jan. 1. PW-437, Eng. News-Record.

AGGRESSIVE, competent, practical general superintendent of construction; 20 years' practical experience on all types of buildings, with largest and best contractors; A-1 references; good organizer; salary $6,000. PW-497, Eng. News-Record.

CONSTRUCTION superintendent with ability to handle any part of the building business, wants to connect with either owner or builder. Can arrange to go anywhere. PW-553 Eng. News-Record.

SUPERINTENDENT or Construction Engineer, experienced all branches construction; efficient organizer, accustomed to handling large work, desires responsible position. Reasonable salary, location immaterial. Phone Bensonhurst 5311-W. C. O. Sutherland, 42 Bay 22nd St., Brooklyn, N. Y.

SUPERINTENDENT or carpenter foreman; 20 years' experience on steel and reinforced concrete construction; good organizer; can get results. PW-566, Eng. News-Record.

Miscellaneous

ARCHITECT, graduate of an Eastern university, 6 years' professional experience, seeks opening with engineering or construction concern. PW-565, Eng. News-Record.

CARPENTER, foreman, 28, experienced in reinforced concrete buildings. Will locate anywhere. Available Jan. 1. A-1 references. P. O. Box 541, Johnstown, Pa.

ENGINEER, at present in charge of estimating and costs for well-known New York City contractor, open for engagement after January 1st, 1922. Have thorough knowledge of prices and market conditions in territory as far West as Chicago and South to Kentucky. Well experienced as executive and in supervising building construction. PW-548 Eng. News-Record.

ENGINEER desires position with general contractor, estimating, superintending and purchasing. College man, eight years', field and office, experience on construction of power plants, steel mills and industrial buildings. Specialized in reinforced concrete and structural steel. Location anywhere. PW-527, Eng. News-Record, Old Colony Bldg., Chicago, Ill.

Sales Over $200,000

WHO can use the services of a general all-around Second-Hand Contractors' Equipment man, one able to inspect, buy RIGHT, look after the overhauling, and then put same on the market to good advantage.

I can sell either NEW or USED EQUIPMENT for Dealer or Manufacturer.

My age, personality, experience and other qualifications, measure up to the desirable standard. Am strictly temperate, and can furnish the very best of references, as to character, ability, etc. Have you an opening for a man capable of managing a business, if so, get in touch with me. Am open for immediate engagement.

Sales for 1920 ran over $200,000.00.

Correspondence strictly confidential.

PW-463, Eng. News-Record.
10th Ave. at 36th St., New York City.

In Replying to "Blind" Ads

be careful to put on envelope the key number in the ad and also local address of office to which reply is sent.

10th Ave. at 36th St., New York.
935 Real Estate Trust Bldg., Phila.
533 Leader-News Bldg., Cleveland.
1570 Old Colony Bldg., Chicago.
531 Rialto Bldg., San Francisco.

Important

Original letters of recommendation or other papers of value should not be enclosed to unknown correspondents — send copies.

0195

POSITIONS WANTED

ENGINEER married, 30, good health, go anywhere. All kinds surveys, railroad location, electrification, valuation, construction, highway location and construction, bridges, etc. Best references cheerfully furnished. Available at once. P. O. Box 475, Spencer, W. Va.

ENGINEER and executive desires connection of scope. Only those requiring the services of a high grade executive considered. Fourteen years' experience in construction work, purchasing, expediting, time and cost keeping, estimating. Organizer and systematizer. PW-561, Eng. News-Record, Real Estate Trust Bldg., Phila., Pa.

EXECUTIVE assitant, Assoc. Mem. A. S. C. E., six years' broad experience since graduation, last year and half as assistant superintendent of structural and reinforcing steel fabrication plant, desires position offering training in accounting and industrial practice. PW-509, Eng. News-Record, Old Colony Bdg., Chicago, Ill.

PACIFIC coast manager for an Eastern industrial roofing manufacturer with an established office in San Francisco, would be interested in representing one or two companies making non-competing building materials. Is an engineer. PW-515, Eng. News-Record, Leader-News Bldg., Cleveland, O.

RESIDENT construction engineer, Civil engineer graduate. Age 29. Six years' experience in field and office work on railroad, street railway and pavement construction, also valuations and tax reports. PW-533 Eng. News-Record.

STEAM shovel operator, non-union. PW-538, Eng. News-Record.

EXTRA WORK WANTED

DESIGNING and estimating jobs wanted in reinforced concrete, sewerage and earthwork. W. C. Warren, C. E., 2530 Pennsylvania Ave., Baltimore, Md.

RITE-SERVICE
Employment Agency

supplies at short notice

Laborers and Skilled Help

for all kinds of construction works anywhere.

All Nationalities

The Rite Service At Your Service
FREE OF CHARGE

Phones: CANAL 1909-7560
129 Mulberry St., N. Y. City

EXTRA WORK WANTED

DESIGNING, detailing, drafting, surveys (land or water), map work, estimates and reports, by experienced graduate C. E. Write me. I will call in New York City. EWW-560, Eng. News-Record.

THOROUGHLY equipped **organization** of experienced engineers and draughtsmen for construction surveys, topographical work and estimates for engineers, architects and contractors. Accurate and prompt service, John M. Farley, 12 East 44th Street, New York City, N. Y.

FIRST class detailing, checking, designing structural steel. Moderate prices. No job considered too small. Write Room 306, 126 Maiden Lane, City.

AGENTS AND SALESMEN

Salesman Wanted

ONE who is calling on power plants in any part of Pennsylvania, New Jersey, Delaware, Maryland to sell on commission as side line high grade article that is needed and wanted by every power plant AS-198 Eng. News Rec. Real Estate Trust Bldg. Phila., Pa.

Sales Engineer or Representative

One who is calling on power plants in Boston, Mass., and vicinity, Buffalo, N. Y. and vicinity to sell on commission as side line high grade article that is needed and wanted by every power plant. AS-513 Eng. News-Record, Real Estate Trust Bldg., Phila., Pa.

WANTED

Double-Drum Hoist Wanted

Suitable for handling 3,000 lb. on single line at 100 ft. per minute, with gas engine, or for belt drive. Give price and make. Samuel Mills, 1111 N. 16th St., Escanaba, Mich. Also pile driver 25 ft. to 30 ft. leaders; 1,500 to 2,000 lb. hammer long sills.

Interest in Structural Plant

Structural engineer with twenty years' experience wishes to buy part interest and become active in structural plant located in or near Chicago. Give full information in reply. W-510, Eng. News-Record.

Steel Truss Bridges

40 to 300 ft. New and second hand. W-563, Eng. News-Record, Old Colony Bldg., Chicago, Ill.

BUSINESS OPPORTUNITIES

High-Grade Building Engineer

And estimator wishes to invest with services in general contracting company in South or Southwest. Only firms of high standing considered. B.O.-556, Eng. News-Record, Old Colony Bldg., Chicago, Ill.

Partner Wanted

Active partner for long established engineering business in the state of Massachusetts. Must be a college graduate, with 5,000 to 10,000 dollars capital. Detailed information on request. BO-567, Eng. News-Record.

AGENCIES WANTED

Contractors, Railroad and Warehouse Equipment and Supplies. Cars, Trucks, Shovels, Cranes, Track Accessories, etc. St. Louis and South. Twenty years' experience. Well appointed office maintained in St. Louis.

AS-554, Eng. News-Record
1570 Old Colony Bldg., St. Louis, Mo.

The Erie Employment & Supply Co.

8701 Union Ave., Cleveland, Ohio

Boarding Camps, and Commissaries, operated for Railroads, Manufacturers, Contractors, Coal Mines, etc. We furnish laborers, mechanics and all classes of skilled help. Employment offices at Cleveland, O., Cincinnati, O., Toledo, O., Columbus, O., St. Louis, Mo., Indianapolis, Ind., Chicago, Ill., Danville, Ill., and Buffalo, N. Y.

AT PUBLIC AUCTION

By Order of DOULLUT & WILLIAMS SHIPBUILDING CO., INC.,

Large quantities of

METAL and WOODWORKING MACHINERY, WATER TRANSPORTATION, RAILROAD and CONTRACTORS STOCK and EQUIPMENT, NEW MATERIAL, LUMBER, SUPPLIES, MISCELLANEOUS EQUIPMENT AND MATERIALS. 17 STEEL AND WOOD BUILDINGS.

VALUATION $2,250,000.00

FITZPATRICK-TILL AUCTION CO., Inc.
HARRY W. FITZPATRICK

SMITH & JAFFE
PHILIP SMITH, *Auctioneers*

Sell by PUBLIC AUCTION Without Limit or Reserve.

January 11th, 12th, 13th and 14th at 11 AM. each day.

At DOULLUT & WILLIAMS SHIPBUILDING CO., INC., SHIPYARD,

Ft. Downman Road on Industrial Canal, NEW ORLEANS, LA.

9 New Steel Oil Barges, 2 Twenty Ton O & S Locomotive Cranes, 5 Portable Ship Cranes Complete, 3 Sullivan Air Compressors, 2000 cu. ft. cap., 4 Babcock & Wilcox, A & T 250-hp. Boilers, 2 Tug Boats, 100 and 500-hp. New Curtis Hydroplane.

16 Pile Drivers, complete with Lidgerwood, American and Lambert double cylinder, double drum Hoisting Engines and Boilers with Turn-Tables and Vulcan No. 1 and No. 2 Steam Hammers.

Metal and Woodworking Machinery, radial drills, universal millers, sensitive drill presses, bolt threaders, and nut tappers, planers, turret and engine lathes, pipe machines up to 9 in., punches and shears, plate tables, steam hammers, grinders, countersinking machinery, bull riveters, band, swing and rip saws, jointers, saw filers and other woodworking machinery, 3 plate and angle furnaces.

35—**Motors** up to 40 hp., 3 phase, 60 cycle, 440 volts.
8—**Flat Cars,** standard gauge, 5 push cars.
2—**Steam and gas portable air compressors,** Westinghouse floating air compressor on barge.
Hoisting Engines, pumps, floating pile drivers, drop hammers.
Overhead and Jib Cranes.
Steel Tower and Tanks up to 50,000 gal.

Lincoln Portable Welding Machines, pneumatic air drills, air riveting, chipping and caulking hammers, air hose, dollies, riveting sets, air tool repair parts, 50 bending slabs, hydraulic jacks, 30 and 50 ton acetylene welding and cutting torches, Hauck burners, 50 chain hoists up to 6 ton cap., high speed drills, reamers, taps and countersinks, vises, blacksmith tools, forges, anvils, etc.

OFFICE, HOSPITAL AND CAFETERIA FIXTURES AND EQUIPMENTS. QUANTITIES OF NEW AND USED LUMBER
500 TONS RIVETS, BOLTS, NUTS, STEEL, BRASS, COPPER AND OTHER METALS

Ship Chandlery:
Ladders, stanchions, grab rods, shackles, blocks, thimbles, sockets, caulking cotton, linoleum, mattresses, cable rope, floodlight, etc.
Enormous quantities pipe, pipe fittings, valves, hardware, electric, plumbing and steam fitting supplies, paints and oils.
Ten International Time Recorders, watchman's clocks, riot guns, blue printing machine.
Motor Cars:
2—Winton Six 7 Passenger automobiles, Gramm-Bernstein 5-ton and Garford 1½ ton trucks.

Buildings and Improvements will be sold Saturday, January 14th at 1 P.M.

17 High Grade Steel, Brick and Wood Buildings to be sold for wrecking. 400 tons, 60 lb. rail, electric wire and telegraph poles, water and air piping, fire hose, fire extinguishers and other land improvements.
All water and rail facilities for shipping.
Street car marked "Villere" to Jitney bus direct to shipyard

Shipyard Open for Inspection commencing Thursday, January 5th, continuing daily to time of sale.

For catalogues and further particulars write or wire to

FITZPATRICK-TILL AUCTION CO., Inc.
225 Royal St., New Orleans, La.

SMITH & JAFFE
68 West 45th St., New York City, N. Y.

DOULLUT & WILLIAMS SHIPBUILDING CO., Inc
New Orleans, La.

OFFICE SPACE TO RENT

Madison Square District

Offices, $600 to $1,350, best light in town, 170 Fifth Avenue, corner 22nd Street, Twelfth Floor. See superintendent or Charles G. Edwards Company, 321 Broadway, Worth 520.

FOR SALE

Ford Dump Trucks

Six (6) one-ton Ford steel body dumping trucks; only run 50 miles; cost $772 each; will sell for $535 each. Trucks in good condition. Michael Barber, Box 622, Connellsville, Pa.

For Sale By Owner

12-Ton Buffalo-Pitts Roller 3 wheel, just reflued and tested, double cylinder, first-class condition, Road Graders, Tar tank wagons, Mixers, Road forms, Pipe, tools, etc., location New York State. FS-546 Eng. News-Record.

FOREIGN BUSINESS

Engineer Sailing

for England, France, Germany and Austria desires to represent American firms, handling building and architectural material. Will also act as buyer for importers. FB-562, Eng. News-Record.

MISCELLANEOUS

Excavating and Trenching

Two No. 4 Keystone, 1 M[illegible] B Erie and 1 Austin trenching machine. Will take contract or rent. Washburne Engineering Co., Locust Valley, L. I.

KING & KING

Attorneys-at-Law
728 17th Str., Washington, D. C.

Attention specially given to matters relating to the rights of Government Contractors before the Executive Departments and the Court of Claims.

Second-Hand Transits and Levels

Guaranteed in Good Order and Adjustment.
Write for New Bargain List
WILLIAMS, BROWN & EARLE, INC.
918 Chestnut St., Philadelphia, Pa.
Department D

NEW AND USED SURVEYING INSTRUMENTS AT FACTORY PRICES

Satisfaction guaranteed or money refunded. Write for complete list and catalogue of our high grade instruments and supplies for civil engineers, surveyors, mining, builders, contractors, etc.; 40 years' experience in repairing instruments of all makes at reasonable prices. Prompt service.

WISSLER INSTRUMENT CO.
607 N. Broadway, St. Louis, Mo.

FOR RENT

No. 0 Austin Trencher

W. G. FRITZ CO., Inc.
West Orange, New Jersey

EXCAVATION

Steam Shovels for rent with crews or work taken by contract.

Dinkeys and cars or teams furnished.

H. C. AMBLER
3717 Old York Road, Philadelphia, Pa.

FOR RENT

Keystone Excavators

For Ditching or Grading— With Crew.

F. D. LEFFINGWELL
Montclair, N. J.

STORAGE

YARD FOR CONTRACTORS' EQUIPMENT

Industrial Service Co., Lincoln, N.J.

Trenching Work Wanted

For one No. 0 Austin, gasoline driven, for ditches 22 in. to 42 in. wide; maximum depth 18 ft.; and one 1921 Model Austin, all caterpillar, gasoline driven, for ditches 20 in. to 30 in. wide; maximum depth 8 ft. Machines now at Jersey City, N. J.

S. L. ALLISON
1953 Hudson Terminal Bldg., New York

For Every Business Want: "Think* SEARCHLIGHT *First"

Used Contractors' Equipment

WANTED

4—A frame derrick car fittings, 10 x 10 boom, 12 x 12 mast, capacity not less than 6,000 lb., length of boom 30 ft., clam shell and regular hoisting operation.

2—Double drum hoist engines, cylinders, 8½ x 10 in., equipped with boiler, to be Ohio Standard.

2—Electric hoists, double drum with boom swinger, 55 hp., 3 phase, 60 cycle, 220 volt, A.C. motor, variable speed.

2—No. 3½ S Dake swinging engines.

E. H. LATHAM COMPANY
60 East Broad St., Columbus, Ohio

WANTED

225—2½-in. x 9-ft.

BOILER FLUES

B. F. POPE
325 Law Building, Baltimore, Md.

CRUSHERS

1—No. 8-K Gates, almost new.
1—36 x 42 Allis Chalmers Jaw Crusher. Manganese fitted.
1—No. 3 Austin Portable plant, complete.

CARS

20—1½ yd. Koppel 24 in. Gauge two way dump cars.
40—4 yd. Western two way 36 in. gauge dump cars. Rebuilt.
20—1½ yd. Western two way 24 in. gauge dump cars.

LOCOMOTIVES

1—20 ton Porter Saddle Tank, with Ohio Boiler, 36 in. gauge.
1—13 ton Shay Geared, 36 in. gauge. Almost new.
1—60 ton 6 wheel Baldwin Switcher. 200 lb. pressure.

Midwestern Company
140 So. Dearborn St., Chicago, Ill.

Locomotive Cranes
Steam Shovels
Locomotives and Cars
Priced to move quickly

PHILIP T. KING
30 Church St., New York
Phone Cortland 2958

Gasoline Locomotives

2—Plymouth 3 ton, 36 in. gauge, with 4 cyl. Red Seal Continental Motors, offered at a bargain.
Also several 6 and 7½ ton, 24 in. gauge Locomotives.

READING ENGINEERING CO., INC.
154 Nassau St., N. Y. City

For Sale or Lease

HOISTS

Compressors—Boilers—Mixers
Derricks—Cableways
Send for our list on rebuilt machinery

HOISTING ENGINE SALES COMPANY
Grand Central Sta., New York City.

Immediate Delivery

1—Spar Mast (Oregon Pine), 64 ft. long, 24 in. base, 20 in. top.
2—Spar Booms (Oregon Pine), 55 ft. long., 16 in. centre, 14 in. ends.
4—Spar Booms (Oregon Pine), 55 ft. long, 16 in. centre, 14 in. and 12 in. ends.
The above are completely ironed and in perfect condition; never been used.
1—25 kw. General Elec. Gasoline D.C. Generator No. 924,338, 43-54 hp., Volts 115 to 230; speed 560 r.p.m.
1—Reliable-Heer Full Base Gasoline-Kerosene A.C. Generator, 55 hp. new.
1—Lidgerwood Elec. D.D. Hoist, 22 hp., 220 Volts A.C. Current, new.
2—35 ft. DeMayo Steel Scrapper Conveyors, Cap. 75 tons per hr. New 2268 ft. Baldwin No. 53 Spec. Sprocket Chain.
24—25 Teeth Sprockets; 8—18 Teeth Sprockets; 48—12 Teeth Sprockets; all for above chain.

For full particulars write or apply to

Selma Mercantile Corporation
15 Moore Street, N. Y. City

FOR SALE

1—13E Foote Paving Mixer....	$600.00
2—Cleveland Caterpillar Tractors, each	850.00
2—Wheel Scrapers for tractor use, each	40.00
1—Portable Sand and Gravel Screen, complete with elevator, hoist and bins	1,000.00
1—¼-yd. Hayward Orange-Peel Bucket	200.00

H. W. FITZ GERALD
611 Press Bldg., Binghamton, N. Y.

Asphalt Plant Special

We have for sale **one rebuilt No. 1** Merriman **2000 yd. One-Car Steam** Melting Asphalt Plant. **In fine condition, on** which **we can make good delivery.**

Here's an opportunity to get a real plant **quickly and at a right price. Better get** in **touch with us immediately.**

The East Iron & Machine Co.
Lima, Ohio

ELECTRIC HOIST

Thomas, standard Y-frame, double drum, gear-driven, cone friction, equipped with 35 hp. variable speed motor, 220 volt, D.C., compressor type control and Thomas automatic brakes.
Has seen very little service. **Price $1,200.**

OVERLAND CONSTR. CO.
39 So. LaSalle St., Chicago

JAW CRUSHERS

In Stock—Ready for Delivery

1—8 in. x 14 in. **Buchanan.**
1—9 in. x 15 in., **No. 4,** portable, with elevator, **Champion.**
1—10 in. x 15 in., No. 4CF, portable, with elevator and screen, **Champion.**
1—10 in. x 18 in. with elevator, **Reliance.**
1—11 in. x 26 in., No. 5, **Champion.**

Also a large stock of Concrete Mixers, Air Compressors, Hoisting Engines, Pumps, Boilers, and other Contractors' Equipment.

L. F. Seyfert's Sons, Inc.
437 N. 3d Street, Philadelphia, Pa.

The Searchlight Advertising in This Paper

is read by men whose success depends upon thorough knowledge of means to an end—whether it be the securing of a good second-hand piece of apparatus at a moderate price, or an expert employee

The Best Proof

of this is the variety of this journal's Searchlight ads. Without a constant and appreciable *demand* for such machinery or services, by its readers, the market-place which these advertisements represent could not exist for any length of time.

Are *you* using the Searchlight Section?

0134

"WE BUY—REBUILD—SELL—OR RENT"

All the Equipment listed below is owned by us and may be inspected at one of our own warehouses.

CONCRETE MIXERS

60—Concrete Mixers. Sizes 28S, cap. 1 yd.; 21S, cap. ¾ yd.; 14 S, cap. ½ yd., and 10S, cap. 1/3 yd. With steam or electric power; with side loaders or batch hoppers. Following makes: Marsh-Capron, Koehring, Milwaukee, Ransome, Smith, Smith-Chicago, Rex, Lakewood, Foote, Cube, or Oshkosh.
31—7S, capacity 1 bag, with low charging platforms; with gasoline engines.

PAVING MIXERS

5—10 E Paving Mixers. Two Koehring and 1 Chain Belt, with boom and bucket, and 1 Foote, with chute, all steam-driven; 1 Smith-Chicago, with chute, gas power.
2—1 Bag Koehring; steam; chute.

CRANES

5—Byers Auto Cranes. One on caterpillar; 4 on traction wheels, with 30-ft. boom, with ½ or ¾-yd. clamshell buckets.
1—15-ton 8-wheel O. & S.; 40-ft. boom.
1—20-ton 8-wheel Industrial; 50-ft. boom.

HOISTS

9—Three-drum Hoists, with or without boilers. Sizes 10 x 12, 9 x 10, 8¼ x 10, and 7 x 10, with separate swingers for derrick work. All makes.
35—Two-drum Hoists, with or without boilers. Sizes 10 x 12 9 x 10, 8¼ x 10, 7 x 10, 6¼ x 10, 6 x 8, and 5 x 8. Can be equipped with holding drum for bucket work. Several special Cableway Excavator or Drag Scraper Hoists. All makes.
2—Gasoline Hoists.

CLAM SHELL BUCKETS

21—Clamshell Buckets. Sizes ½, ¾, 1, 1½, or 2 yd. All makes.

DERRICKS

14—Stiff-Leg Derricks. Five new, 9 used; with booms ranging from 50 to 75 ft.; mast legs and sills in proportion, for handling ½, ¾ or 1-yd. buckets.
2—All-Steel Guy Derricks; mast 105 ft.; boom 90 ft.; bucket operating.

RAIL AND TRACK

5 miles 24-in. Gauge Portable track with steel ties, made up of 20-lb. rail with switches.
1,000 ft. 36-in. Gauge Portable Track with steel ties, with two switches.

LOCOMOTIVES

1—Vulcan, 9 x 14, 36-in. gauge, steam saddle tank.
2—Koppel 24-in. gauge steam, 6½ tons.

STEAM SHOVELS

3—Type O Thew Steam Shovels, on traction wheels, with ⅝-yd. dipper.
1—Bucyrus, 70-ton, on MCB standard gauge trucks, with 2½-yd. dipper.
2—Keystone Excavators.

ROAD ROLLER

1—10-ton 3-wheel Austin Gasoline Roller.

TRENCHING MACHINE

1—Buckeye; wheel type, gasoline; size No. 3.

We carry a complete line of Boilers, Compressors, Cars, Engines, Elevators, Hoppers, Steam Hammers, Rollers, Pumps, Spouting and Portable Track. Write or wire your requirements.

EQUIPMENT CORPORATION OF AMERICA

PITTSBURGH, 855 Empire Bldg.
Phone, Smithfield 1502

CHICAGO: 1455 Lumber Exch.
Phone, Randolph 6586

PHILADELPHIA: 655 Land Title Bldg.
Phone, Spruce 5498

FOR SALE

LOCOMOTIVE CRANES

1—15-20 ton Brownhoist; 8-wheel, M.C.B.; 40-ft. boom bucket operating drums.

1—15 ton O. & S.; 8-wheel, M.C.B.; 70-ft. boom, with 25 ft. removable section; double power driven drums; also dragline attachments, equipped with outriggers.

1—15 ton Industrial; 40-ft. boom; bucket drums.

OVERHEAD CRANES

2—30-ton, 50-ft. span, Morgan Traveling Cranes; 4 motors; 220 volt D.C. Westinghouse equipment.

STEAM SHOVELS

1—Marion, Model 31; 1-yd. dipper; Shop No. 3068.

1—Marion, Model 28; ⅝-yd. dipper; Shop No. 3328.

1—Marion, Model 40, on railroad trucks; 1½-yd. dipper.

NEW TRACTION CRANES

Full Revolving Road Cranes; 7-ton capacity, with ¾-yd. bucket.

LOCOMOTIVE

American 6-wheel Switcher. Cylinders 18 x 24-in., drivers 44 in., wheel base 11 ft. 6 in., weight 60 tons.

BOILERS

1—30 hp., locomotive type, portable boiler, with engine mounted on top.

1—50 hp., firebox, locomotive type; 100 lb. pressure.

ASPHALT PLANT

1—Iroquois 800-yd. Road Asphalt Plant; complete.

CRUSHER OUTFIT

1—Gates, 18-K; Gates 60 in. x 20 ft. revolving screens; 42-in. bucket elevator; 80-ft. centers.

We carry in stock concrete mixers, air compressors, road rollers, hoisting engines, buckets, pipes, cars and other equipment and machinery.

F. Mayer, 737 Monadnock Bldg., Chicago, Ill.

Second-Hand

MACHINERY

Contractors' Equipment

Stacks, Tanks, Pipe, Etc.

What are your requirements?

Henry A. Hitner's Sons Co
4501 Richmond St., Philadelphia, Pa.

Picks and Pick Handles

⅞-lb. Railroad Picks.
36-in. Hickory Handles.
Below Market Prices.

DEWEY SUPPLY CORPORATION
18 W. 34th St., New York City

ROAD BUILDERS' PLANT

FOR SALE

Road-Rollers; Pavers; Shovels; Keystone Excavators; Locomotives; Track; Dump and Flat Cars; Hoists; Cranes; Graders; Finishers.

All necessary Equipment for complete plant.

JOHN M. GREENE
430 Chestnut Street, Philadelphia, Pa.

SACRIFICED!!

Five 5-Ton Garford Trucks

$1,200 Each

Equipped with Wood Automatic Hoists and Metal Dumper Bodies. All in good running order. These trucks were taken over by a bank and must be sold. Price quoted is less than 25% of cost. Terms can be arranged if secured.

Fredk. Davis, 137 Broadway, New York City
Representing the Owner
Phone Rector 9560

FOR SALE

1—Haiss Digging Type Wagon Loader, 6-hp. Novo engine, $800
1—Haiss Self-Propelled Loader, $1300.
1—Haiss 1½-yd. High Power Bucket.
1—½-yd. Owens Clam Shell Bucket.

GEORGE HAISS MFG. CO., Inc.
140th St. and Rider Ave. to Canal Place, N. Y.

STONE CRUSHER

1—Gyratory No. 6-F with fittings

Holbrook, Cabot & Rollins Corp.
52 Vanderbilt Ave., New York, N. Y.

FOR SALE—PAVERS

3—Steam, chute discharge; overhauled and in first class condition.

No. 10 E. Foote	$1,000.00
No. 13 E. Foote	1,500.00
No. 11 Koehring	1,750.00
10-Ton Monarch Steam Road Roller	1,500.00

THE T. J. LANE EQUIPMENT CO.
Springfield, Ohio.

No. 14 Koehring Paver

with boom and bucket, steam operated.
Price $1,450.00 f.o.b. Chester.

HENRY LEVIS & CO.
Commercial Trust Bldg., Philadelphia

FOR SALE

RAILROAD DITCHER

Standard American Steel Lattice Boom; complete with dipper and full equipment. Completely overhauled and ready for immediate shipment.

SOUTHERN IRON & EQUIPMENT CO.
Atlanta, Ga.

IMMEDIATE DELIVERY—BARGAIN PRICES—Wire, Write, Phone

HOISTING ENGINES AND DERRICKS

30—Stiff Leg Derricks; 55-ft. booms, 35-ft. masts, with steel blocks and cable.
3—Thomas "Y" Frame Double Drum Electric Hoists, cut-gear driven; cone friction, with 30 hp., 220 v., D.C. motors.
15—Thomas "B" Frame Double Drum Electric Hoists, cut-gear driven, cone friction, with 20 hp., 220 v., D.C. motors.
13—General Ordinance Cargo Hoists, 9 x 9, double cylinder, single drum.

PLANT EQUIPMENT

1—Steel Dock Crane; 19-ft. steel tower, with two steel masts 36 ft. long, and two 70-ft. steel booms; 4,000 ft. cable. Capacity, 30 tons on each boom.
2—American Angle and Plate Furnaces, low pressure, fuel oil burners.
1—Aceylene Gas Generating Plant, Navy type, with compressor and acetone pump.
15—Steel Frame Push Cars.
Lot 2, 3, 4 and 5-ton Triplex Chain Hoists.
Lot High-Speed Reamers and Drills.
Lot Dies and Punches.
Lot Pipe Fittings, Valves and Supplies.
10,000 lineal ft. Forced Draft System 3-in. Heater Tubing cut to 43-in. lengths.

ELECTRICAL EQUIPMENT

1—20-Panel Slate Switchboard, fully mounted with A.C. and D.C. instruments, oil switches, circuit breakers and automatic switches.
3—Carlyle Finch Searchlights, 120 v., D.C., 35 amps.; 18-in. lens.
Lot Transformer Testers, Ammeter Shunts, Voltmeters, etc.

CONTRACTORS' EQUIPMENT

3—Barber-Green Portable Belt Conveyors, with electric motors.
1—5-ton Industrial Loco. Crane.
1—45-ton 4-wheel Switching Engine with tender.
Lot Galvanized Wire Rope, ½-in. to 1½-in.
Lot Steel and Wood Blocks.
Steel Pipe, welded seams, with one loose flange, made of 3 in. x 3 in. angle, as follows: 6 pcs. 15-in. dia. x ¼ in. x 9 ft. long; 47 pcs. 17-in. diam. x ¼ in. x 8 ft. 7 in. to 10 ft. long; 21 pcs. 19-in. diam. x ¼ in. x 16 ft. long; 6 pcs. 23-in. dia. x ¼ in. x 7 ft. 9 in. long; 48 pcs. 24-in. diam. x ⅜ in. x 7 ft. 9 in. to 18 ft. 10 in. long.

PNEUMATIC TOOLS

100—Boyer Chipping and Caulking Hammers.
77—Boyer Rivetting Hammers, No. 60.
16—Keller Rivetting Hammers, No. 60.
8—Keller Rivetting Hammers, inverted handles, No. 50.
61—Thor Drilling Machines, No. 42.
1100—Caulking Tools and Chisels.
3000—Rivet Sets, flush, buttonhead and flat.

500 TONS RIVETS

Panhead, buttonhead, conehead and countersink in sizes ⅝-in. to 1⅛-in. dia.

STEEL AND LUMBER

1,200 tons of Lloyd's Inspected Ship Plates.
500,000 ft. of L. L. L. Pine and Fir, 8 x 8 to 12 x 12 in. 15 ft. to 45 ft. lengths.

MACHINERY

1—Pond 42 in. x 30 ft. Triple-Geared Engine Lathe, arranged for motor drive.
1—Baush Multiple-Spindle Heavy-Duty Drill Press; 8 adjustable spindles and centre spindle.
3—Wood Working Machines; four-sided planer and moulder; 36-in. band saw; square-head jointer, 12-in.

SHIP MACHINERY AND EQUIPMENT

6—Scotch Marine Boilers (knocked down).
2—Triple Expansion Engines, 2800 hp.
4—Condensers; 3,500 and 600 sq. ft. cooling surface.
Lot Forced Draft Fans, Anchor Windlasses with extra wildcats. Blake-Knowles Simplex Pumps. 33 Five-ton Cargo Booms, Steering Gears, Evaporators, Feed Water Heaters, Circulating and Air Pumps, Anchor Chains, Life Boats, Smoke Stacks, Ship Chandlery.

STOCK LIST NO. 12 MAILED ON REQUEST

MARYLAND WRECKING COMPANY, Carolina Shipyard, Wilmington, North Carolina

---

FOR SALE

25 HOISTING ENGINES
33 AIR COMPRESSORS
20 CONCRETE MIXERS
100 MOTORS
20 DERRICKS
30 DUMP BUCKETS
3 CABLEWAY OUTFITS
100 PUMPS
3 LATHES
10 LOCO. BOILERS
10 UPRIGHT BOILERS
12 SWINGING ENGINES
40 AIR RECEIVERS

PIERCE FOUNDATION CORPORATION
738 East 141st St., New York City
Phone: Melrose 7678

Locomotive Cranes

FOR SALE OR RENT

3—8-ton Industrial.
2—10-ton Industrial.
1—15-ton Browning.
1—20-ton Industrial.

For immediate delivery at Brooklyn, N. Y.

MARVIN BRIGGS, Inc.
167 Sixth St., Brooklyn, N. Y.

HOISTING ENGINES

Lidgerwood—10 x 12 D.C. dbl. drum with swinging gear levers banked in quadrant No. 24270.
Lidgerwood—10 x 12 D.C. Dbl, drum No. 25074.
Lidgerwood— 9 x 10 D.C. Dbl, drum No. 27645.
Lidgerwood—8¾ x 10 D.C. Dbl. drum No. 14268.
Lidgerwood—8¼ x 10 D.C. 3 drum No. 25671.
Lidgerwood—8¼ x 10 D.C. Dbl. drum with swinging gear base to receive boiler No. 27094.
Lambert— 9 x 10 D.C. Dbl. drum with swinging gear No. 10738.
Mead-Morrison—9 x 10 D.C. 3-drum.
Lidgerwood—7 x 10 D.C. Dbl., drum.
Flory—7 x 10 D.C. Dbl, drum.
Lidgerwood—6¼ x 10 D.C. Dbl, drum
Mundy—5½ x 10 D.C. Dbl, drum.
All the above are skeleton type, without Boilers.
Lidgerwood—8¼ x 10 D.C. Dbl, drum, boiler & swinging gear.
Lidgerwood—8¼ x 10 D.C. Dbl, drum, Boiler.
Mundy—8 x 12 D.C. Dbl. drum and boiler.
Lidgerwood—7¼ x 10 D.C. Dbl. drum and boiler and swinging gear.
Mundy—7¼ x 10 D.C., Dbl, drum and boiler and swinger.
Mundy—6½ x 12 D.C. Dbl, drum and boiler.
Mead-Morrison swinging engines, & Dake.
Single drum types, Cableway and Haulage engines. Electric Hoists.

All located our yards Baltimore.

DERRICKS

STIFF LEG TYPE

5—Derricks Booms 65 ft., 14 x 14 Mast 38 ft., 14 x 14 Bull Wheel.
3—Derricks Booms 62 ft., 14 x 14, Mast 38 ft., 14 x 14 Bull Wheel.
6—Derricks Booms 45 ft., 16 x 16, Mast 28 ft., 18 x 18 Bull Wheel.

GUY DERRICKS

1—Derrick Boom 80 ft., 14 in. Round. Mast 87 ft., Rd. 3 line.
1—Derrick Boom 60 ft. Round, Mast 70 ft., Rd. Bull Wheel.
1—Steel Derrick 80 ft., Boom 10 Ton.
1—Steel Derrick 70 ft., Boom 30 Ton.

Any of the above derricks we will furnish to handle Grab Buckets and equip with Bull Wheels. A number of Traveling Derricks on hand, send for complete list. Most of these are located in our yard.

Send for complete list of equipment

WIRE WRITE PHONE

MARYLAND EQUIPMENT & SUPPLY CO., Baltimore, Md.

BRAND NEW

MARION STEAM SHOVELS

MODEL 61, 2½-YARD, 70-TON.
MODEL 70, 3¼-YARD, 80-TON.

Immediately available.

For quick sale, and for cash, can offer the above at real bargain prices.

W. R. WADDELL,
50 Church Street, New York

LOCOMOTIVE CRANES

FOR SALE OR RENT

1—20-ton 8-wheel Browning; 50-ft. boom, double drums, ASME boiler; slightly used condition, like new.
2—30-ton 8-wheel Browning; 50-ft. booms, double drums, ASME boilers, outriggers; condition like new.

GREY STEEL PRODUCTS COMPANY
111 Broadway, New York City

FOR SALE OR CHARTER

CLAM SHELL DREDGE

5-yd.; fine condition; complete equipment.

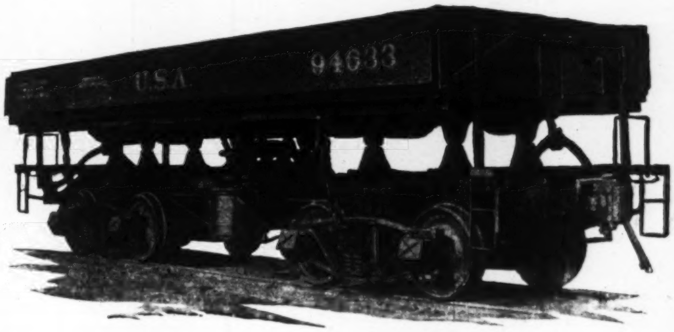
GEORGE W. SUNDERLIN
1024 Main St., Bridgeport, Conn.

Buyers
Everywhere
know
"Searchlight"

Try an ad for what you wish to sell.

0232

FOR SALE OR FOR RENT



17 Western 20-Yd. All-Steel Air Dump Cars

GENERAL DESCRIPTION

Gauge—Standard, 4 ft. 8½ in.
Capacity, level full—20 cu. yds.
Capacity, heaped full—26 cu. yds.
Bed dimensions—26 ft. x 9 ft. x 2 ft. 4 in.
Length of car, over all—31 ft.
Height of car, over all—8 ft. 3 in.
Air dumping arrangement—Vertical cylinder with side chains.
Capacity of trucks—80,000 lbs.
Weight, about 48,000 lbs.
M. C. B. construction throughout and U. S. Safety Appliance Standard.

All cars slightly used, Guaranteed good as new.

Clapp, Norstrom & Riley Equipment Company
14 South Canal Street, Chicago

FOR SALE OR RENT

STEAM SHOVELS

2—Type B Erie, revolving; traction wheels; ¾-yd. dippers.
1—70-ton Bucyrus; 2½-yd. dipper.
1—18-B Bucyrus, revolving; traction wheels; ⅞-yd. dipper.
1—150-B Bucyrus Shovel, 2½ yd.
1—175-B Bucyrus Shovel, 3½ yd.
1—Little Giant; 1¼-yd. dipper, on railroad trucks. Equipped with standard boom and dipper; also with tunnel boom and dipper.

BOX AND REFRIGERATOR CARS

20—60,000 lb. capacity Box Cars, 34 ft. 7 in. long.
20—60,000 lb. capacity Refrigerator Cars, 36 ft. long.

LOCOMOTIVES

2—6-wheel Switchers—Standard gauge; 40-ton.
2—American Passenger; Type 4-4-0; standard gauge; 50-ton.
5—9 x 14 Dinkeys (3 Porters); 2 Vulcans; 36-in. gauge.
2—10 x 16, 18 ton Porters, 36 in. gauge.

DRAGLINES

1—Class 7 Bucyrus, steam; caterpillars; 42-ft. boom; 1-yd. bucket.
1—Class 14 Bucyrus caterpillars; 60-ft. boom; 2-yd. bucket.
1—Class 14 Bucyrus; skids and rollers; 60-ft. boom; 2-yd. bucket.
1—Class 24 Bucyrus; skids and rollers; 100-ft. boom; 3½-yd. bucket.
1—Class 24 Bucyrus Electric, skids and rollers, 100 ft. boom, 3½ yd. bucket.
1—Model 36 Marion, caterpillar, 50-ft. boom, 1½ yd. bucket.
2—Monighan 1-T Walker, gasoline; 40-ft. boom; 1-yd. bucket.
1—Monighan, A-1, steam; traction wheels; 40-ft. boom; 1-yd. bucket.
1—No. 2 Monighan, steam; skids; 60-ft. boom; 2-yd. bucket.
1—No. 2½ Monighan, skids and rollers, 80 ft. boom; 2-yd. bucket.
1—No. 4 Monighan, on trucks; 100-ft. boom; 2½-yd. bucket.

TRACTOR & TRAILERS

1—10-ton Holt Caterpillar 40-60.
3—5-ton Troy Trailers.

The above list is constantly changing. No matter what your machinery requirements are, write us—we may have it.

BECK & BABB, 29 So. La Salle Street, Chicago, Ill.

J. E. HAETTEN & CO., INC.
50 Church Street, New York
Telephone Cortlandt 324

CONTRACTORS' EQUIPMENT

2—10-ton Buffalo Pitts 3-wheel Rollers.
2—5-ton Buffalo-Pitts Rollers.
1—5-ton Erie Tandem Roller.
1—14-ft. Austin Paver, practically new.
2—21-E Austin Cube Pavers.
1—Smith Simplex Paving Mixer.
3—National Swinger D.D. D.C. Electric Hoist, 220 volt, 3-phase, 60 cycle, G. E. motors.
1—10 x 12 Flory Hoist, complete; 90% new.
1—¾-yd. Thew Shovel.
1—150-hp. Fitzgibbons Heavy Duty Marine Type Boiler; 150 lb. steam.
1—Gravel Pit Equipment including revolving screen, hopper, bins, engine, boiler and belting.
1—½-yd. Clamshell Bucket, practically new.

We also handle a full line of used and new contractor's equipment and machine tools. We solicit your inquiries.

FOR SALE OR FOR RENT

Concrete Mixers, Lakewood Concrete Towers, Hoisting Engines, Derricks, Pumps, Gasoline Tractors, Steam Hammers, Buckets and Compressor outfits.

Edward Ehrbar, Inc., 270 West St., New York City

FOR SALE

1 Case 10-ton Road Roller	$1500
1 Baker 10-ton Road Roller	$1300
1 Galion Crusher	$300
1 Fort Wayne Crusher and Screening Plant	$900

THOMAS MITCHELL
7 Turner Blk., Battle Creek, Michigan

HOISTING ENGINES

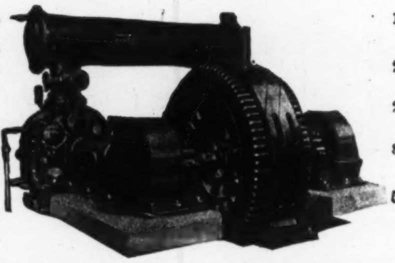
1—9 x 12 Three-Drum Stroudsburg, with boiler mounted on engine frame, like new.
1—9 x 12 Two-Drum Stroudsburg, same as above.
1—8¼ x 10 Lidgerwood, two-drum, with base for boiler on main frame.
1—7¼ x 10 Mundy, two-drum, with atttched swinger.
1—7 x 10 Lidgerwood, skeleton, two-drum.

Great Lakes Equipment Company
Webster Bldg., Chicago, Ill.

FOR SALE OR RENT

COMPRESSORS

66 ft. Ingersoll-Rand 7 x 6 x 3¼ x 6 type F.R.2., steam driven, high pressure.
150 ft. Ingersoll-Rand 9 x 8 E.R.1., belt driven compressor, complete with tank, unloader and fittings. Motor to suit.
210 ft. Chicago-Pneumatic, oil driven, on skids.
210 ft. Chicago-Pneumatic, gasoline driven, on wheels.
250 ft. Chicago-Pneumatic, 12 x 10, steam driven.
2—355 ft. Ingersoll-Rand, 12 x 10 x 12 x 10, F.R.1., steam driven. Complete with fittings.
700 ft. Ingersoll-Rand, 17 x 12, E.R.1., complete with unloader, idler, all fittings. Motor to suit.
1—549 ft. Chicago-Pneumatic, class NSB, belt driven Compressor. Motor to suit.



COMPRESSORS

1190 ft. Ingersoll-Rand, Imperial type X-3, high duty, steam driven, duplex air comp.
2—1482 ft. Ingersoll-Rand, type X.B.2., with 250 hp., 220-440 v., 60 cy., 3 ph. motor, and all fittings.
2—1500 ft. Laidlaw-Dunn-Gordon, latest type feather valve, belt driven Compressors. Motors to suit.
850 ft. Laidlaw-Dunn-Gordon, 17 x 10 x 14, complete with unloader and all fittings.
5—2674 ft. Ingersoll-Rand, class P.R.E.-2, direct connected to General Electric, 440 and 2300 volt, 60 cy., 3 ph. Synchronous Motors. Complete with exciters, panels, switches, air receivers and all fittings.

Also Boilers, Buckets, Cranes, Cableways, Derricks, Hoists, Generators, etc.

ARCHER ARMSTRONG & COMPANY

VANDERBILT 10408
GRAND CENTRAL TERMINAL, NEW YORK CITY

Electric Mine Pump

5-in. GOULD Three Stage Centrifugal Pump, 500 gallons capacity, 450 foot head, close coupled to and driven by 100 H.P. 2200 volt, 3 phase, 60 cycle Motor. Practically new, thoroughly overhauled and guaranteed.

Three Hundred Other Pumps

Send for our December list of the largest stock in the United States of slightly used or thoroughly overhauled MACHINE TOOLS, POWER, ELECTRICAL AND CONTRACTORS' EQUIPMENT. Satisfaction Guaranteed or Money Refunded.

WICKES MACHINERY CO.
Jersey City, N. J.
Established 1900.

For Sale—Pumping Engine

One horizontal triple expansion plunger and ring pattern Worthington 3,000,000 gallon pumping engine surface condenser in suction and attached air pump. 12 x 19 x 30 inch steam cylinders, 15 inch plungers, 24 inch stroke.

In splendid condition. Duty new 90,000,000 foot pounds. Steam pressure 120 pounds, water pressure 100 pounds, fire pressure 125 pounds.

Price f. o. b. cars $2,500.00. Delivery about March 1st, 1922. Location, Hanahan, S. C.

Full specifications on request to Commissioners of Public Works,
No. 14 George Street, Charleston, S. C.

Air Compressors

2—710 C.F.M. Class WJ3 Sullivan Angle-Compound Belt Driven Air Compressors. Practically good as new. Immediate shipment.

A. McMILLAN
628 Monadnock Block, CHICAGO, ILL.

IMMEDIATE DELIVERY

Send us your inquiry, Steam Shovels

50—75-hp. Single Drum Hoists, 25 cy. mtrs.
25-50-40-hp. Double Drum Hoists, 60 cy. mtrs.
Nos. 3-5-6-7½-9K and 18 K CRUSHERS.
2—6 and 12-ton Gasoline Locomotives.
10 x 12 in. Steam Hoist, 3 drum, with boiler.
65-hp. Locomotive Type Boiler.
150-hp. Boiler, buttstrap with Jones stkr., 156-lb.
No. 9K GATES CRUSHER, REGULAR DRIVE.
25-50-100-200-kw. and larger Turbo and Eng. Sets.
50 to 5,000-ft. Steam, Belt and Elec. Drive Comp's.
10, 15 and 20-ton Locomotive Cranes.

LARGE AMOUNT CONTRACTORS' EQUIP., TOWERS, ETC.

Send us your inquiries Contractors' Equip., Centrif. Pumps, Quarry Equip., etc.

ROSS POWER EQUIP. CO.
Indianapolis, Ind.

PUMPS

1—No. 5 Pulsometer.
1—No. 3 Emerson Sinking Pump.
1—17 and 12 x 10 x 15 Worthington Duplex Fire Pump.
1—Duplex steam force pump 7½ x 5 x 8.
2—3 in. Suction Diaphragm Pumps on skids attached to gasoline engines.

HOIST

1—7 x 10 D.C., D.D. Lidgerwood with boiler.

BOILERS

3—H. R. T. Boilers, 150 hp. butt strapped.
100—Boiler Tubes, 4 in. x 16 ft.

AIR COMPRESSOR

1—Westinghouse 9½ in.

LATHES

1—78-in. Putnam Wheel Lathe.
1—300-ton Niles Hydraulic Wheel Press.

CULLEN-FRIESTEDT CO.
1300-14 So. Kilbourn Ave., Chicago, Ill.

Locomotive Type Boilers

1—40 hp. Ames on wheels complete with engine on frame.
1—100 hp. Pennsylvania on skids, Hartford test.

W. B. SPENCER
150 Nassau Street, New York City
Telephone Beekman 3911

PORTABLE COMPRESSORS
and PNEUMATIC TOOLS
FOR SALE OR RENT

Gasoline, Steam & Electric Compressors

Jackhammers, Riveting Hammers, Chipping Hammers and Concrete Breakers

JOHN H. KNIGHT
448 E. Tremont Ave., New York City

PUMP MOTOR DRIVEN

8-in. Suction, 6-in. Discharge, Worthington Volute, 800 gallons at 65-ft. head, Direct Connected 25 HP., Westinghouse A. C. Motor, 220-440 Volts, 3 Phase, 60 Cycles, 1120 RPM., all on a cast iron base; $450. This set practically new. Second-hand machinery of all kinds.

H. R. WILSON MACHINERY CO.
St. Louis, Mo.

AT A GREAT BARGAIN

75 hp. Double Drum Reversible Flory Engine.
100 hp. Economic Type Erie Boiler.
All Steel Dragline.
Osgood 18 Steam Shovel.
15—Four-yard Heavy Duty Side Dump Western Cars.

JAMES CARROLL
917 Wainwright Bldg., St. Louis, Mo.

COMPRESSORS

2,678 and 1,726 ft. PRE-2 I. R. Electric.
1,190 ft. I. R. Imperial; belt and steam.
2—741 ft. O-CB Chicago, 2-stage; belt.
522 ft. Laidlaw, 2-stage; belt.
396 ft. WB-2 Sullivan; steam.
179 ft. NF-1 I. R.; steam.
145 ft. ER-1 I. R.; belt.
2—202 hp. Mass. Std. HRT Boilers; 165 lb.

A. LEE ELLIS
10 High St., Boston 9, Mass.

Carbic and Milburn Lamps

No. 2 and No. 3
New. In Original Cases.
Below Market Prices.

DEWEY SUPPLY CORPORATION
18 W. 34th St., New York City

FOR SALE

International Harvester, 50 hp. Twin Cylinder, Horizontal Stationary Kerosene

ENGINE

good running condition, $1000.

ALLEGANY LUMBER CO.
Fillmore, N. Y.

CONTRACTOR'S PLANT

FOR SALE OR RENT

Compressors, towers, hoists, mixers, pumps, conveyors, concrete chute, saw rigs.

E. GEORGE & CO., Inc.
407-9 Broadway, New York City

1—8 hp. D.C. Single Drum Hoist Boiler.
1—16 hp. D.C. D.D. Hoist Boiler.
1—7 x 10 D.C. D.D. Meade-Morrison Boiler.
1—8 x 12 D.C. D.D. Mundy-Ohio-Mass. Boiler.
20—4-yd. Steel Draft Beam Western Cars.
1—50 hp. Loco. Type Boiler on skids.

Empire Engineering and Equipment Co.
Empire Bldg., Pittsburgh, Pa.

PIPE PIPE PIPE

Have Ready for Immediate Shipment the Following New Pipe

STEEL

Two carloads ½ in. black pipe threaded and coupled.
One carload ¾ in. black pipe plain ends.
One carload 4 in. galv. pipe threaded and coupled.
One carload 5 in. black pipe threaded and coupled.
One carload 6 in. black pipe threaded and coupled.

GENUINE WROUGHT IRON

One carload 3½ in. black pipe threaded and coupled.
Three carloads 3½ in. galv. pipe threaded and coupled.
One carload 6 in. galv. pipe threaded and coupled.

Can offer same at prices far below the prevailing market.

Albert & Davidson, Inc., 256-264 Oakland St., Brooklyn, N.Y.

WROUGHT PIPE

WITH PERFECT THREADS AND COUPLINGS

BLACK	GALVANIZED	BLACK	GALVANIZED
40,000 ft. 1"	15,000 ft. 1"	4,000 ft. 3½"	1,000 ft. 3½"
30,000 ft. 1¼"	10,000 ft. 1¼"	8,000 ft. 4"	4,000 ft. 4"
15,000 ft. 1½"	9,000 ft. 1½"	4,000 ft. 5"	2,000 ft. 5"
50,000 ft. 2"	10,000 ft. 2"	2,500 ft. 6"	1,500 ft. NEW 12" galv. spiral flanged pipe.
20,000 ft. 2½"	5,000 ft. 2½"	2,000 ft. 8"	
15,000 ft. 3"	15,000 ft. 3"	2,500 ft. 10"	

For price apply:

MARINE METAL & SUPPLY CO., 167 South Street, New York City

PIPE

CAST IRON, B & S

20,000 ft. 4 in. Class "C"
50,000 ft. 6 in. Class "C"
50,000 ft. 8 in. Class "C"
3,000 ft. 10 in. Class "C"
3,000 ft. 12 in. Class "C"
500 ft. 14 in. Class "A"

FITTINGS, B & S.

1,000 tons, all sizes.
Valves, all sizes.
Hydrants, Corey & Matthews.

WROUGHT STEEL

25,000 ft. 3½ in.
15,000 ft. 4 in.
3,000 ft. 4½ in.
3,000 ft. 5 in.
2½ in. to 8 in. Blk. Steel
10, 12 and 16 in. O.D. Blk. Reading.

FITTINGS, Cast and Malleable

Screwed and Flanged.
Std. Ex. Hvy. All Sizes.
Valves, Std. Ex. Hvy. Hydraulic.

IMMEDIATE SHIPMENTS—Cast Iron Pipe, from Penniman, Va. Parlin & Mays Landing, N. J., and Chester, Pa.

CHARLES J. GRANT SUPPLY COMPANY, Boyertown Bldg., Phila., Pa.

PIPE

SECOND HAND AND NEW

Large stock, all sizes.
Immediate Delivery

FRANK GRIFFITH
412-24 Moyer St., Philadelphia, Pa.

OIL LINE PIPE

Offered at much less than market prices

All or any part of 42 miles new, ten-inch, 41 lb., steel line pipe F. O. B. or F. A. S. New York. Inspected by Pittsburgh Testing Laboratories.

F. B. LYNCH,
Room 1200 2 West 45th St. N. Y. C

Notice to Advertisers!

Owing to the holiday—Monday, January 2nd—the **"Searchlight"** pages of the January 5th issue of **Engineering News-Record** will close for press earlier than usual. Copy should reach us as follows:

For January 5th issue:

Display Ads—Copy required by 5 P. M., Friday, December 30th
Want Ads—Copy required by 10 A. M., Saturday, December 31st
Proposal Ads—Copy received as usual go up to 11 A. M., Tuesday, January 3rd

---

WROUGHT-PIPE

New, Second-hand and
Mill Seconds

BOILER TUBES

EAGLE PIPE & SUPPLY CO.
General Offices-Woolworth Building
NEW YORK CITY

PIPE

New, Untested, Black Steel Pipe for every industrial and manufacturing purpose—random or cut lengths. We have a large stock of first quality mill material.

Immediate shipment

Davidson Pipe & Supply Co.
861 Western Avenue, Pittsburgh, Pa.

GREENPOINT

SECOND-HAND PIPE

All sizes—with new threads and couplings.
Also cut to sketch
GREENPOINT IRON & PIPE CO., Inc.
330 Graham Ave., Brooklyn, N. Y.

PIPE

Large Stocks, New and Second Hand.
Immediate Delivery

L. & D. Metal & Supply Co., Inc.
1096 Flushing Avenue, Brooklyn, N. Y.

WROUGHT IRON AND STEEL PIPE

New and second-hand. With new threads and couplings. All sizes from ½ to 12 in Also cut to sketch.

DAVIDSON PIPE & IRON CORP.
436-40 Kent Ave., Brooklyn, N. Y.

PIPE

Large Stock **All Sizes**
New and Second Hand

REPUBLIC PIPE & IRON CORP.
1185-1223 Flushing Ave.
BROOKLYN, N. Y.

PIPE SECOND HAND

With new threads and couplings; also cut to sketch.

PFAFF & KENDALL
Ferry & Foundry Sts., Newark, N. J.

For Pipe Buyers **Engineering News-Record's PIPE PAGE** *For Pipe Sellers*

CONTRACTORS' OVERHAULED EQUIPMENT

PUMPS

1—18 in. Morris centrifugal connected direct to double vertical steam engine, 12 x 12 Cylinder 10,500 gal., 25 ft. head.
1—10 in. Erie belt driven double suction centrifugal, 3500 gal., pulley 24 in. dia., 14 in. face.
1—20 in. Worthington Turbine, belt driven, pulley 34 in. diameter by 38 in. face.
1—15 in. Buffalo, belt driven, pulley 30 in. dia. by 22 in. face.
1—10 in. Morris Volute, belt driven.
1—Platt Duplex 9 x 5½ x 10 force pump.
1—Worthington Duplex 6 x 4 x 6 force pump.
1—Knowles Duplex 4½ x 2¾ x 4 force pump.
1—Cameron force pump No. 7.

CARS

20—12 yd. Western dump cars, standard gage.

CHANNELLING MACHINES

2—Sullivan Y8 Channelling Machines.

LOCOMOTIVES

1—10 x 16, 18-ton Vulcan Dinkey, 36-in. gage.
2—10 x 16, 18-ton H. K. Porter, Dinkey, 36 in. gauge.

ROCK DRILLS

3—Tripod rock drills, steam or air operated.
1—Drill sharpener, Sullivan.
1—Drill sharpener, Leyner.

BOILER

1—50 hp. Loco. type.

STEAM SHOVEL

1—Model 20 Marion, 1¼ yd. dipper.

TRUCKS

3—4-wheeled House Moving Trucks.
2—Heavy Machinery Truck Wagons.

COMPRESSORS

1—18 x 18¼ x 24 Ingersoll-Sargent Steam Driven, straight line, 656 f.p.m.
1—Sullivan 2 stage 20 x 12½ x 16 Belt Driven, 887 f.p.m.
1—12 x 12 x 16 Rand Duplex, Steam Driven, cap 500 f.p.m.
1—Westinghouse compound, 10½ in.
2—Westinghouse 9½ x 9½ x 10.

BUCKETS (CONCRETE)

2—McMyler 1½ yd. Center Line Dump.
4—Lockwood 2½ yd. Bottom Line Dump.
2—Steubner 1½ yd. Controllable.
2—Steubner 2 yd. Controllable.
1—Steubner ¾ yd. Controllable
2—Atlas 1½ yd. Bottom Dump.
4—Top dump circular coal Buckets 3½ ft. D. x 3 ft.

MISCELLANEOUS

1—Lidgerwood unloader, 25-ton pull.

UNITED STATES EQUIPMENT CO., 208 S. La Salle St., Chicago

LOCOMOTIVE CRANES

3—20-ton, 8-wheel Browning, 50 ft. boom, double drums, A. S. M. E. boiler, M.C.B. trucks, outriggers, excellent condition.
2—15 ton, 8-wheel Industrial 40 ft. boom, Hook block A. S. M. E. Boiler.
1—15 ton Brownhoist, 8-wheel, 50-70 ft. boom.
1—7½-ton Browning Electric.
1—7½-ton Industrial.

HOISTING MACHINERY CO.
50 Church St., New York

LOCOMOTIVE CRANE

15-ton, 8-wheel McMyler, Bucket Handling, Lap Joint Boiler

Mechanical Factory SUPPLIES

STEEL LOCKERS
NEPONSET SHINGLES

National Aniline and Chemical Co.
21 Burling Slip, New York, N. Y.

RENT OR SELL

Locomotive Crane

30-40 ton **Industrial.** Guaranteed same as new. 80 ft. boom (3 sections, will handle 100 ft. boom). Double Drum Bucket Handling, M.C.B., A.S.M.E. Boiler. Immediate delivery; ready now.

Also 20 ton MCB McMyler, 50 ft. boom, steam shovels, locomotives, hoisting engines, mixers, derricks, etc.

Contractors' Machinery & Supply Company
Wabash Building, Pittsburgh, Pa.

LOCOMOTIVE CRANE

1—Used Model "D" 20-ton capacity 8-wheel MCB "OHIO Locomotive Crane; double drums, full cab, 50-ft. boom; located near New York; condition excellent, price right. To secure wire order subject immediate inspection.

TITAN EQUIPMENT COMPANY
Hudson Terminal Bldg., New York
Phone, Cortlandt 1111

FOR SALE OR RENT

Equipment owned by us sold under absolute guaranty subject to trial in service

STEAM SHOVELS

1—14-B Bucyrus Full Revolving Steam Shovel, mounted on caterpillar traction. Shop No. 2162, ¾-yd. dipper.
1—70-C Bucyrus, Shop No. 1700 2½-yd. dipper.
1—45C Bucyrus, Shop No. 1202; 1¾ yd. bucket.
1—65-ton Bucyrus, Shop No. 394, 2½-yd. dipper.

DUMP CARS

17—20-yd. Standard Gauge Western All-Steel Air Dump Cars; 80,000-lb. cap., vertical cylinders, side chains. Practically new.
24—16-yd. Standard Gauge Western Air Dump, Cars, steel underframes, box girder doors.
90—12-yd. Standard Gauge Western Air Dump Cars, steel underframes, 19-ft. beds, box girder doors.
1—Western 36-in. gauge Spreader Car.

LOCOMOTIVES

1—Standard gauge 14 x 20 cylinder 4-wheeled Vulcan saddle tank locomotive, Shop No. 1501. Built 1910. Weight 39 tons; air brakes; 180-lb. steam pressure.
1—Standard gauge, 18 x 24 cylinder 6-wheeled, switching Locomotive, with separate tender, weight 50 tons on drivers.
1—Standard gauge 10 x 16 cylinder 4-wheeled Porter saddle tank Locomotive. Shop No. 3607, wt. 19 tons. Air brakes, automatic couplers.
2—36 in. gauge, 12 x 18 cylinder Porter 6-wheel switchers, with separate tenders. Weight on drivers, 48,000 lb., 9 ft. rigid wheel base, 180 lb. steam pressure, air brakes. Built in 1918, never used.
1—36-in. gauge 10 x 16 cylinder American 18-ton 4-wheel saddle tank Locomotive.
2—24-in. gauge, 7 x 12 in. cylinder, Baldwin 4 wheeled saddle tank Locomotives. Shop Nos. 34798 and 34820. Wt., 8 tons.

DRAGLINE EXCAVATORS

1—No. 2 Monighan Steam-Operated All-Steel Dragline; 60-ft. boom; 2-yd. Page bucket, mounted on skids and rollers.
1—Class 14 Bucyrus dragline; 60 ft. boom, 2 yd. Page bucket; skids and rollers.
1—No. 1-A Monighan All-Steel Steam-Operated Dragline, mounted on traction wheels; 40-ft. boom; 1-yd. bucket.

MISCELLANEOUS

1—25-ton Industrial Locomotive Crane, No. 3261, new in 1916; 50-ft. boom with 20-ft. extension; M.C.B.
7—Camp Cars, 45 ft. long; 60,000 lb. capacity.
1—Stiff-leg Derrick, brand new, 60 ft. boom, complete with all fittings and 14 ft. bull wheel, no cable. Bargain.
1—⅝-yd. Owen Clamshell Bucket.
1—¾-yd. New Owen Clamshell Bucket.
Industrial Track—1600 ft. 36 in. gauge track made up of 25 lb. rail in 15 ft. sections with 6 and 7 steel ties to section; curve included.
9—2-ton Kelly-Springfield Trucks, standard box bodies with removable sides. Practically new.
20—Sets Standard Chain Tug Harness, with collars, brand new.

Clapp, Norstrom & Riley Equipment Co.
12 and 14 So. Canal St., Chicago

QUALITY H-F Co SERVICE

Equipment Bargains

COMPRESSORS

210 cu. ft. Chicago Pneumatic, oil-driven.
150 cu. ft. Ingersoll, electric driven.
800 cu. ft. McKiernan, steam driven.
144 cu. ft. Ingersoll-Rand, portable, gasoline-driven.

STEAM SHOVELS

Type B Erie, Mass. boiler.
18-B Bucyrus, Mass. boiler.
36 Marion, caterpillar traction.
No. 4 Keystone Excavator.

MIXERS

7-S Knickerbocker, gasoline engine.
28-S Ransome, motor driven.
14-S Koehring on skids motor driven.
28-S Chain belt steam driven
14-E Koehring Paver on traction wheels.

HOISTS

6½ x 10 Lambert D.D.D.C. with boiler and swinger.
9 x 10 Mead Morrison D.D.D.C. skeleton, cableway.
8½ x 10 Lambert D.D.D.C. with boiler.
9 x 10 Mead Morrison three drum skeleton.
50-hp. American D.D. Electric.
9½ x 12 Lambert 3-drum with boiler.
50 HP. American D.D. Electric, A.C. Motor.

CRUSHERS

10 x 18 Reliance on skids.
13 x 30 Farrell, manganese jaws.
No. 8 Gates gyratory.
No. 5 Austin Gyratory.

CRANES

15 ton O. & S. Mass. Boiler.
15 ton Brown Hoist, Mass. Boiler.
Byers, wheel traction, with bucket.

These are merely suggestions.
Send for our new list of Contractors and Quarry Equipment.

THE HUBBARD-FLOYD CO., Inc.
MAIN OFFICE: Grand Central Palace, New York, N. Y. Vanderbilt 1465.
BOSTON OFFICE: Old South Building. Main 4233

Immediate Shipment—Large Tonnage of

Bridge Girders and I Beams

Also STEEL RAILS—New and Relaying

M. K. FRANK
Frick Building, Pittsburgh, Pa.

FOR SALE—4—70 ft.

TURNTABLE GIRDERS

Will sell separate or assembled for Turntable use.
Full information upon request.

WALSH CONSTRUCTION CO.
Shickshinny, Pa.

We specialize in

STEEL SHEET PILING

GET OUR PRICES BEFORE YOU BUY OR SELL

ZELNICKER IN ST. LOUIS

Rails, Cars, Locomotives, Boilers, Tanks, Pipe.

FOR SALE

Floating Pile Driver

PRACTICALLY NEW
WONDERFUL BARGAIN
WRITE FOR PRICE, FULL PARTICULARS AND PHOTOGRAPH

GEO. F. WALKER
Box 18, Hampton, Virginia

FOR SALE

Floating Pile Driver
Orange Peel Bucket
Rock Crusher
Miscellaneous Contractors Plant

JARRETT-CHAMBERS COMPANY
30 East 42d St., New York

Steel Sheet Piling

Lackawanna and United States in various lengths for immediate shipment.

BROWN & SITES CO.
Main Office:
30 Church St., New York City

STEEL PILING

BOUGHT AND SOLD

UNIVERSAL EQUIPMENT COMPANY
Niagara Falls, N. Y.

STEEL SHEET PILING

Immediate Shipment.
175-pcs. 25 ft. Lacka. 14 in. arched.
225-pcs. 30 ft. Lacka. 14 in. arched.
First class driving condition.

MID CONTINENT EQUIPMENT AND MACHINERY CO.
Security Bldg., St. Louis, Mo.

TRENCHING MACHINES

- 1—Parsons Model, No. 60, steam; digs 20 ft. deep, up to 60 in. wide.
- 1—Austin, No. 1, steam; digs 20 ft. deep, up to 54 in. wide.
- 1—Austin, No. 00, steam; digs 10 ft. deep, up to 29 in. wide.
- 1—Austin Backfiller, gasolene; 35-ft. boom.

JAMES McELROY
11 S. LaSalle St., Chicago

I BEAMS

400 tons of 6-in., 12¼-lb. Steel Beams, 15 ft. 9 in. long.
200 tons of 10-in., 25-lb., 14 to 16-ft. Beams.

HOISTING ENGINE

1—Twin Drum Coal Hoist, made by G. Haiss Mfg. Co., N. Y. Cylinders 8x12; drums 24-in. dia., 16-in. face; 37-in. dia. flanges; 40 hp.; grab ⅝ ton.

BOILERS

4—Manning Vertical Boilers, 500 hp.; will insure 175 lbs. Immediate delivery.
1—H.R.T. Boiler, 72-in. dia. x 16 ft. 3 in.; 125-lb. pressure.
3—72-in. dia. H.R.T. Boilers, 19 ft. 6 in. long; 135-lb. pressure.
4000 ft. 1⅜-in., 6 x 19 C. S. Hauling Wire Cable. Also some 1-in. and 1¼-in. Galvanized Cable.

TANKS

All sizes of Tanks, open and closed, suitable for storage of gasoline or oil, in stock at our Boston Yard.

DRUMS

200—110-gal.

The Perry, Buxton, Doane Company
214 West First St., South Boston 27, Mass.

- 1—**TRENCH EXCAVATOR**, Parsons, Model F (78 in.), steam, wheel traction, complete in working order, f.o.b., Wisconsin, $2600.
- 2—**BACKFILLERS**, Parsons, Model 10, one year old complete in working order, each $1600.
- 1—**PAVING MIXER**, Foote, 13-E, steam, 2 Bag Batch, chute, $850.
- 9—**TRAILER WAGONS**, Troy, 3½ yard, reversible, bottom dump, 8 in. steel wheels, $1900.

H. Y. SMITH CO.
Milwaukee, Wis.

FOR SALE

PARSONS' TRENCHING MACHINE

For Immediate Delivery

JOHN B. McLANE & COMPANY
Newport, Kentucky

RAILS RAILS RAILS

RELAYING RAILS

of all weights. Write us for prices.
Track material and equipment.

H. M. FOSTER COMPANY
Continental Bldg., Baltimore, Md.

Notice to Advertisers!

Owing to the holiday—Monday, January 2nd—the **"Searchlight"** pages of the January 5th issue of **Engineering News-Record** will close for press earlier than usual. Copy should reach us as follows:

For January 5th issue:

Display Ads
Copy required by 5 P.M., Friday, December 30th

Want Ads
Copy required by 10 A.M., Saturday, December 31st

Proposal Ads
Copy received as usual up to 11 A.M., Tuesday, Jan. 3rd

60-lb. Relaying Rail

Two hundred tons with angle bars. First-class. Pennsylvania delivery other sections in stock.

E. H. WILSON & COMPANY
COMMERCIAL TRUST BUILDING
PHILADELPHIA

56-LB. RAILS

1000 tons, 56 lb. Relayers with Angle Bars. Immediate shipment from stock.

MERCHANTS STEEL & SUPPLY CO.
208 S. La Salle St., Chicago, Ill.

RELAYING RAILS

15,000 tons 30 lb. to 100 lb. Sections with necessary Bars.

LURIA BROS. & CO., INC.,
OFFICES: Reading, Pa.; Lebanon Pa.; New York, N. Y.; Pittsburgh, Pa.; Boston, Mass.
YARDS: Reading, Pa.; Donaghmore, Pa.; Lebanon, Pa.; Pittsburgh, Pa.

RAILS and TRACK

150 tons Relaying 60-lb. Rails
75 tons Relaying 75-lb. Rails
200 tons Relaying 80-lb. Rails
16-lb. 24 in. gauge Portable Track

HENRY LEVIS & CO.
Commercial Trust Bldg., Philadelphia

GET OUR STOCK LIST OF

RAIL BARGAINS

THE MORRISON & RISMAN CO.
Buffalo Philadelphia
Pittsburgh New York

BUYERS—Send me your inquiries.

STEEL TEE RAILS

LOCOMOTIVES
STEAM SHOVELS
CARS

Sell me your surplus.
E. C. SHERWOOD, 50 Church St., New York

YOUR RAIL if advertised here, will reach a field of over 30,000 readers including many big **BUYERS**

EQUIPMENT BARGAINS

At

Old Hickory

Machinery, of all kinds, from the World's greatest Powder Plant, now offered to American Industry at prices far below present cost.

Just a few of the offerings:

44—823 hp. Stirling Boilers.
3—500 hp. Keeler Boilers.
27—350 hp. Corliss Engines.
1—3000 kw. Generators.
2—630 ft. Air Compressors.
2—2570 ft. Air Compressors.
10—14 in. 8,600 g.p.m. Pumps.
2—10 in. 3,750 g.p.m. Pumps.
4—14 in. 7,500 g.p.m. Pumps.
6—16 in. 8,500 g.p.m. Pumps.
6—14 in. 8,100 g.p.m. Pumps.
2—Underwriters Fire Pumps.
16—Hydraulic Pumps.
200—Boiler Feed Pumps.
200—Blowers.
2000—Steel Tanks, all sizes.
1—50 ft. 20 ton, R.R. Crane.
1—110 ft. Fixed Radius Crane.
1—2-6-0 Locomotive.
2000—Wood Tanks, all sizes.
35—Electric Locomotives.
5000—Narrow Gauge Cars.
500—Electric Motors.
11—Sulphuric Acid Plants.
5—Nitric Acid Plants.
Transmission Equipment.
Process Equipment.
Chemical Equipment.
Miscellaneous Equipment.
Etc. Etc. Etc.

Write for Special Bulletins as follows:

No. 7—Tanks, all kinds.
No. 8—General Equipment.
No. 10—Pumps.
No. 11—Blowers.
No. 12—Industrial Cars.
No. 14—Chemical Equipment.
No. 15—Transmission.
No. 16—Building Material.

Nashville Industrial Corp.
Jacksonville, Tenn.

Contractors' Guaranteed

EQUIPMENT

Immediate Shipment!!

LOCOMOTIVES

1—65-ton 2-6-0 Mogul Type Standard-Gauge Locomotive, cylinders 19-in. diameter, 24-in. stroke, working steam pressure 160 lb. Manufactured by American Locomotive Works.
1—45-ton 8-wheel 4-4-0 Standard-Gauge Locomotive, cylinders, 18-in. diameter, 24-in. stroke, working steam pressure 160 lb. Manufactured by Pittsburgh Locomotive Works.
2—5-ton Porter Compressed Air Locomotives 24 in. gauge cross-compound cylinders, size of high pressure 4½-in. low pressure, 9-in. stroke 10-in. capacity air tank 41 cu. ft., charging pressure 1200 lb. pressure at throttle 250 lb. tractive force 1450 lb. Complete with hand brakes and electric headlights.
1—18-ton 4-wheel Drive Standard-Gauge Locomotive; saddle tank, cylinders 10-in. diameter, 16-in. stroke, working steam pressure 110 lb. link and pin couplers. Manufactured by Rhode Island Locomotive Works.

HOISTING ENGINES

1—9 x 12-in. Russel double cylinder, double drum Hoisting Engine, heavy duty type, without boiler.
4—7½ x 10 in., double cylinder, single geared drum Hoisting Engine, with reversing throttle valves.
1—6¼ x 8 in. Clyde double cylinder, double friction drum Steam Hoisitng Engine, with two winch heads, drums 14-in. diameter, 20-in. between flanges complete with fittings (No Boiler). Base is made for boiler.

ELECTRIC TRAVELING CRANES

2—Brand New 10-ton overhead Electric Traveling cranes, 31 ft. 9-in. span; 3 motor type 440-volt, A. C. 60 cycle, 3 phase.
Brand new 3-ton overhead Electric Traveling Crane, 35 ft. span; 3 motor type; 220 D. C.

DUMP CARS

150—12-yd. Western & Oliver all-steel, two-way Dump Cars, standard gauge.
50—1¼-yd. 20-in. gauge, wood body, two-way Dump Cars.
3—36-in. gauge, 8-wheel Flat Cars, 40,000-lb. cap., 7 ft. wide, 20 ft. long, wheels 24-in diameter.

STEAM SHOVELS

6—95-ton Bucyrus Railroad Type, 5-yd. dipper; 90 per cent new.
10—70-ton Bucyrus Railroad Type, 2½ to 3-yd. dipper; 90 per cent new.

BOILERS

3—150-hp. Triple-Riveted Return Tubular Boilers, 66 in. diameter, 20 ft. long; 125-lb. pressure.
2—125-hp. Triple-Riveted Return Tubular Boilers, 66-in. diameter, 18 ft. long; 100-lb. pressure.
2—100-hp. Triple-Riveted Return Tubular Boilers, 66-in. diameter 16 ft. long; 100-lb. pressure.
1—60-hp. Locomotive Firebox Boiler, 48-in. diameter, 16 ft. 6 in. long overall; 100-lb. pressure.
1—35-hp. Vertical Tubular Boiler; 95-lb. pressure.
1—25-hp. Vertical Tubular Boiler; 95-lb. pressure.

AIR COMPRESSORS

1—1,800-ft. cap. Class W.B.2 Sullivan Steam-Driven Air Compressor; 100-lb. pressure.
1,900-ft. Ingersoll; steam-driven.
1—Single-Tandem Fuel Oil-Driven Compressor, Chicago Pneumatic Tool Co. No. S. 0-2. 309 cu. ft. capacity.
1—19-in. x 12-in. x 16-in. Ingersoll-Rand—2-stage Compressor; 888 cu.ft. 100 lbs. pressure, Belt-driven.

GENERATORS and MOTORS

7—Westinghouse 250-hp. Motors, Type C.C.L., 440 volt, 60 cycle, 3 phase motors, speed 514 r.p.m., with base and starters. Can be furnished with pulley or flange coupling.
1—60-kw. Triumph Generator, 125 volt, D.C., belted.
1—300-kw. G. E. Rotary Converter, 25 cycle.
1—30-hp. Northern 110-volt, D.C. Motor.

CENTRIFUGAL PUMPS

1—6-in. Swaby Horizontal Centrifugal Pump.
1—8-in. Fairbanks-Morse Horizontal Centrifugal Pump.
1—12-in. Worthington Horizontal Centrifugal Pump.
1—24-in. Kingsford Horizontal Centrifugal Pump.

Our Free Bulletin No. 205 lists over 100 pages of Industrial Plant Equipment and General Supplies from our latest purchase.

Your copy is waiting! Ask for it now!

HARRIS BROTHERS CO.
35th and Iron Sts., Chicago, Ill.

READY FOR SERVICE

RAILROAD—CONTRACTORS
and
INDUSTRIAL EQUIPMENT CARS
Standard-Narrow Gauge
COAL—FLAT—GONDOLA—DUMP—BOX
All Capacities
LOCOMOTIVES
ELECTRIC—STEAM—GASOLINE
LOCOMOTIVE CRANES
STEAM SHOVELS

THOMAS F. CAREY CO.
120 Liberty Street, New York, N. Y.

P. E. Francis & Co.

Railroad and Industrial Equipment
Marquette Bldg., Chicago, Illinois

ASPHALT PLANTS
BOX CARS
FLAT CARS
GONDOLA CARS

FOR RENT AND SALE

13—6-yd. rebuilt dump cars, std. gauge.
20—12-yd. Westerns, like new std. gauge.
50—60,000-lb. capacity flat and box cars.
1—Western standard gauge spreader.
1—Osgood 18 revolving shovel, traction wheels, No. 794, ¾-yd. bucket, used 8 months.
1—Marion 36 combination shovel and dragline, No. 4725, caterpillar traction 1½-yd. bucket, used 4 months, built March, 1921.
1—Marion 76 steam shovel, No. 3503, standard gauge.
1—P. & H. gasoline dragline and crane, caterpillars, 40 ft. boom, ½-yd. bucket, new 1921.
1—Northwest gasoline dragline and crane, caterpillars, 40 ft. boom, ½-yd. bucket, new 1921.
1—No. 2 Brownhoist four-wheel gasoline crane, std. ga., 40 ft. boom, ½-yd. bucket, new 1921.

LOCOMOTIVES

1—40-ton 17 x 24 in. four-wheel switcher.
2—New 25-ton six-wheel Porters, separate tender, 36 in. gauge.
2—18, 14 and 10-ton Vulcans, 36 in. gauge.

INDUSTRIAL EQUIPMENT CO.
McCormick Building, Chicago, Ill.

CLAM SHELL BUCKETS
½ and ¾ cu. yd. ... per day $3.50
1 and 1¼ " " " 4.50
FOR SALE
NEW AND REBUILT
HAISS
For All Purposes
and Rehan...
140th St. and Rider Av...
New York, N.Y.

STEAM SHOVEL

FOR SALE

Marion 28 on traction wheels, ¾-yd. dipper, can be seen at Jamestown, N. Y., in good working order.

JAMESTOWN CONSTRUCTION CO.
Jamestown, New York

SHOVEL

Type "O" Thew on traction wheels. Fine condition. Immediate Delivery. Bargain Price.

L. A. GREEN,
First National Bank Bldg., Pittsburgh, Pa.

Brains Always Go Together!

So to speak:

The Curtis Publishing Co., The Ladies Home Journal, Saturday Evening Post, Country Gentleman, Philadelphia Public Ledger people—

Are exploiting the Man-of-Brains who has made such a great success of—

The Barrett Co. (Congoleum and Coal Tar Products)

The Bon Ami Co. (Orford Soap Co.) "Hasn't Scratched Yet"

The Man-of-Brains is Mr. William Hamlin Childs. Mr. Childs is quoted by the Ledger of Nov. 21st, as follows:

"One business I began with the purchase of a trade mark for $5000.00. Recently we refused $3,000,000. for that trade mark. Another corporation at the time I joined it, had a volume of business of about $5,000,000. Now it has a volume of around $80,000,000. a year."

Bon Ami, "Hasn't Scratched Yet," the soap;

"Congoleum," Roofs, etc., the Coal Tar Products, etc.,

Now listen and you'll know how Brains go together:

THE BARRETT CO., equipped their plants at the beginning **WITH RIDGWAY ELEVATORS.**

As the business grew from $5,000,000. to $80,000,000., **RIDGWAY ELEVATORS WERE ADDED.** Go down to Marcus Hook, Pa., some day and see a big bunch of Ridgway Elevators in the Congoleum plant. Also at Erie, Pa., and elsewhere.

THE ORFORD SOAP CO. at Manchester, Conn., make the Bon Ami soap.

THE ORIGINAL FACTORY WAS EQUIPPED WITH RIDGWAY ELEVATORS.

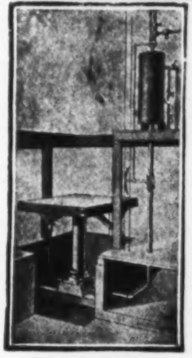
As the Trade Mark "Bon Ami, Hasn't Scratched Yet," grew from $5000 to $3,000,000 in the hands of Mr. Childs.

RIDGWAY ELEVATORS WERE ADDED TO THE GROWING FACTORY.

Isn't it funny, that all the Great Successes in the Land seem to be those which are run with sort of brains that

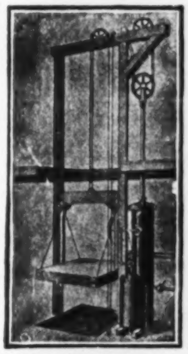
"HOOK 'ER TO THE BILER"

CRAIGE RIDGWAY & SON CO., Coatesville, Pa.
ELEVATOR MAKERS TO FOLKS WHO KNOW

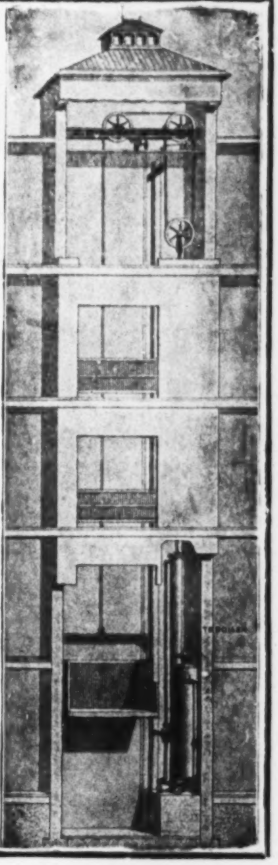


Direct Acting

Over 3000 in Daily Use



Double Geared



Special

HIGHWAY NUMBER

January 12, 1922

Published at the time of the 13th annual Good Roads Show which will be held at the Coliseum, Chicago.

Representing *News-Record* and its advertisers at the convention.

Offering manufacturers in the field an opportunity of putting an aggressive bid for highway business in an issue that will go to interested highway men—

At a time when they are actually seeking result-producing or time-saving methods.

Send space reservations and copy instructions early.

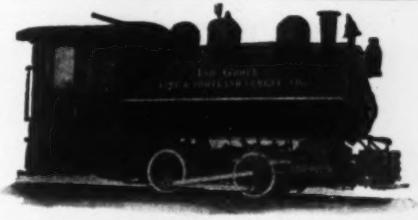
Member A.B.P

Engineering News-Record

One of the Twelve McGraw-Hill Publications

Tenth Ave. at 36th St., New York

Member A.B.C



All sizes and types of light steam

LOCOMOTIVES

ROD AND GEAR-DRIVE

Davenport Locomotive Works

Davenport, Iowa

Ramapo

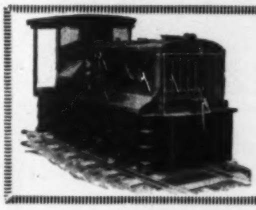
Automatic Safety Switch Stands

Ramapo Iron Works
HILLBURN · NEW YORK

NEW YORK OFFICE 30 Church Street

PLANTS Hillburn New York, Niagara Falls New York

Switches Frogs Crossings Double Shoulder Solid Bottom Switch Riser Plates Adjustable Rail Braces Guard Rail Clamps [illegible] Solid and Built Manganese Tee Rail Special Work Industrial Cars Etc



PLYMOUTH

Gasoline Locomotives

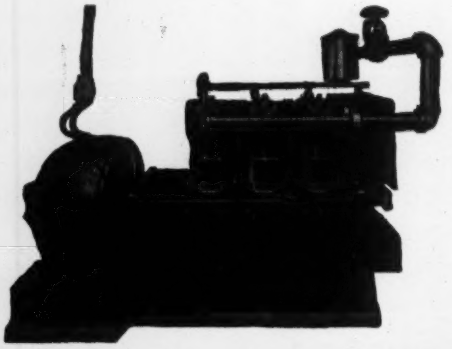
For all Industrial Haulage

Ask for Bulletins

THE FATE-ROOT-HEATH CO.
Plymouth, Ohio, U. S. A.

KEEP PRODUCTION COSTS DOWN

Adapt compressed air to your factory operations. Install a WESTINGHOUSE-NATIONAL compressor to insure steady, profitable results from your pneumatic machinery.



Westinghouse-National Air Compressors

Cut down electric bills, save floor space, reduce maintenance costs, require minimum attention.

They make hard jobs easy and increase plant capacity.

We specialize in a line of motor-driven air compressors peculiarly adapted to modern factory requirements. Sizes up to 550 cu. ft.

Westinghouse Traction Brake Company

General Offices and Works: Wilmerding, Pa.

OFFICES:

Boston, Mass.
Chicago, Ill.
Columbus, O.
Denver, Colo.
Houston, Tex.
Los Angeles
Mexico City
St. Paul, Minn.
St. Louis, Mo.
New York
Pittsburgh
Washington
Seattle
San Francisco

TRADE MARK

VINAL HAVEN GRANITE

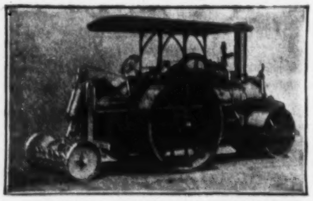
FOR SMOOTH PAVEMENTS

Note the smoothness of this granite pavement—the close joints and smoothness are due to plane surfaces and square corners, characteristic of every Vinal Haven Granite Block. Pavements of Vinal Haven Granite are noiseless, dustproof and waterproof. Write for full particulars.

J. LEOPOLD & COMPANY, INC., 233 Broadway, New York

QUALITY ROLLERS

"Buffalo-Pitts" and "Kelly-Springfield"



In all types and sizes, steam and motor.

Buffalo - Springfield Pressure Cylinder Scarifiers can be built on new rollers or attached in the field to rollers already in service.

Inquiries Invited.

The Buffalo-Springfield Roller Co.
Springfield, Ohio

DEPENDABLE DUMP CARS

Western

It is staying power that counts in the long run. Western Dump Cars stand up under hard work. You will find that they will stick to an imperfect construction track better than other cars.

All practical sizes from 1 cu. yd. to 45 cu. yd. capacity

WESTERN WHEELED SCRAPER COMPANY
Earth and Stone Handling Equipment
Aurora, Illinois

Spencer, White & Prentis
100 West 40th St., N. Y. C.

Foundation Specialists

Steel Tubes to Rock ***"Pretest" System***

5 TON 3 SPEED GASOLINE LOCOMOTIVE

GEAR AND FRICTION DRIVEN GASOLINE LOCOMOTIVES—2½ TO 25 TONS ON DRIVE WHEEL

WHITCOMB LOCOMOTIVES

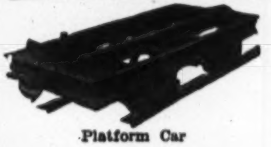
IT WILL PAY YOU TO GET OUR PROPOSITION BEFORE YOU BUY

GEO. D. WHITCOMB CO.
MAIN OFFICE AND WORKS
ROCHELLE, ILLINOIS
U. S. A.

4 TON STORAGE BATTERY LOCOMOTIVE.

STORAGE BATTERY LOCOMOTIVES—1 TO 8 TONS ON DRIVE WHEELS

EASTON CARS



Platform Car

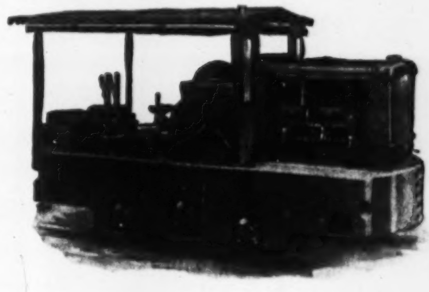
Ruggedly constructed Easton Road Cars, cars of all types, standard or special, and complete narrow gauge railway equipment from track up—built for enduring service and backed up by thirty years of Easton experience—are available for every contracting and industrial car haulage requirement.

EASTON CAR & CONS'T'N CO.

48 Church Street, New York Works: Easton, Pa.

Atlanta Chicago Dallas Los Angeles Pittsburgh
Boston Cleveland Detroit Philadelphia Salt Lake City

Specialists
in the
DESIGN AND MANUFACTURE
of
Standard—Insulated
Compromise Rail Joints
THE RAIL JOINT COMPANY
61 Broadway, New York City



The American Gasoline Locomotive

light on gas!—
easy on the operator!—
STRONG on pulling!—

American "Gas-O-Motive has Hercules motor, friction drive, efficient cooling system, telescopic coupling in transmission housing, self-aligning axle, direct full vision ahead, positive 4-wheel sander, and 4-wheel brake, all parts accessible. Low types for tunnel work.

Remember—1,600 pounds drawbar pull—and all it needs is the track to run on! You can treat it rough—neglect it—but when the call comes, it's there.

Details on request—send for catalog

The Hadfield-Penfield Steel Co.
Bucyrus, Ohio

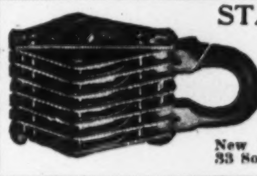
---

cars·track·switches

TRADE MARK REGISTERED
KOPPEL
U.S. PATENT OFFICE

New York · Pittsburgh
Chicago · Detroit
Philadelphia · San Francisco

Koppel Industrial Car & Equipment Co.
Koppel, Pa.



STAR BRAND BLOCKS
Are Standard

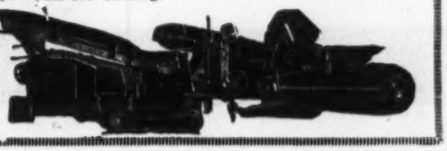
For any lift or difficult working condition they are safest, strongest and most durable.

Boston & Lockport Block Co.
108 Condor St., East Boston, Mass.

New York City
33 South St.

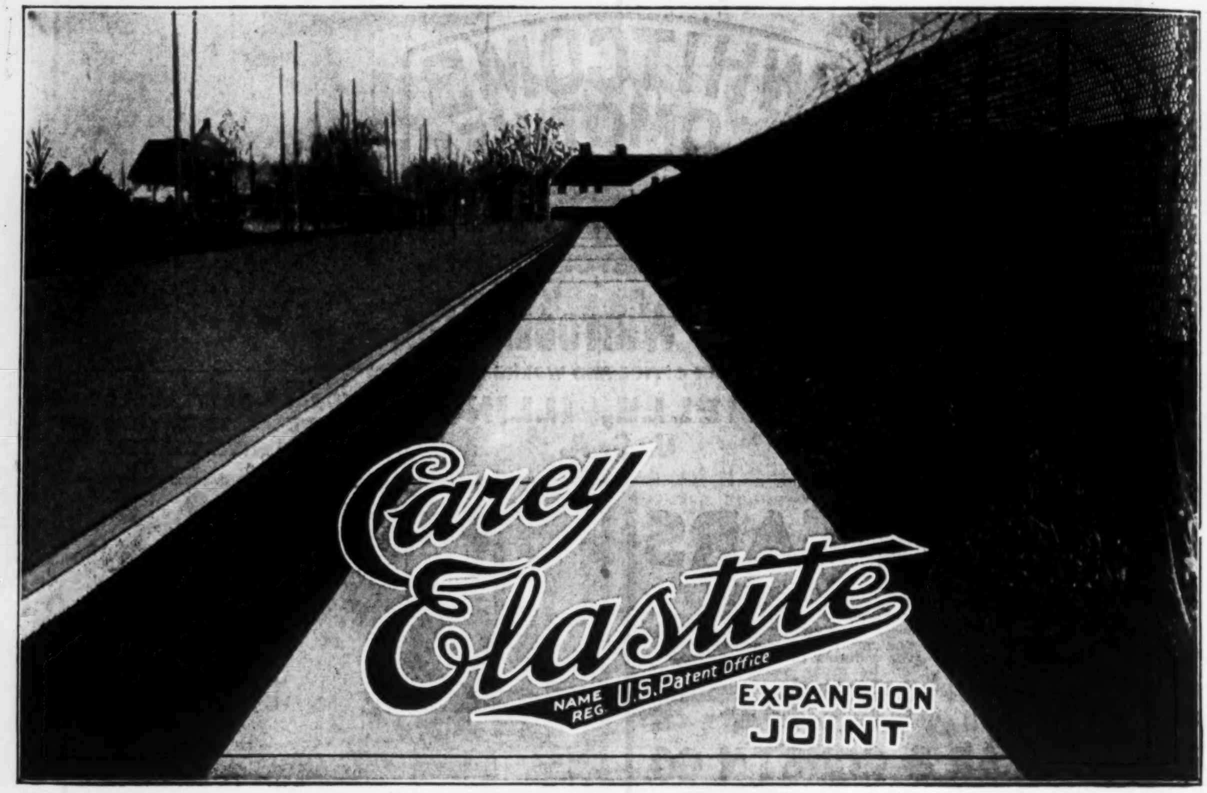
Chicago
413 Fort Dearborn Bldg.

MYERS-WHALEY SHOVELS are used on two of the most famous tunnel jobs in the country—at Shandaken, N. Y. and Hetch Hetchy, California. Why? Ask for Catalog.



MYERS-WHALEY CO.
Knoxville, Tenn.

JANUARY 12TH
Good Roads Show Issue



CREDITABLE

A SIDEWALK job in which Elastite is used is a creditable job long after many other walks laid at the same time go bad.

Elastite absorbs expansion due to excessive heat, and prevents the walk from buckling.

When contraction takes place in cold weather instead of opening an irregular crack that is later widened by water and frost action, the contraction shows itself at the joint—no irregular crack occurs and the Elastite keeps the joint filled with a water-tight, frost-tight, damage-proof seal.

For particulars about this widely adopted defense for sidewalks, write

THE PHILIP CAREY COMPANY
18 Wayne Ave., Lockland Cincinnati, Ohio

CHICAGO

TEXACO Asphaltic Concrete being laid on Grand Boulevard, Chicago, Illinois, in 1912.

This is what the Chief Engineer of the South Park Commission, Chicago, wrote to the Mayor of Trenton, New Jersey, about TEXACO ASPHALT:

"Have laid many thousands of square yards of TEXACO with very satisfactory results and consider same one of the highest grade asphalts on the market."

AND

Finished TEXACO Asphaltic Concrete pavement on Grand Boulevard, Chicago, Illinois.

The excellent streets and boulevards in leading cities prove the expertness of the engineers who planned their construction.

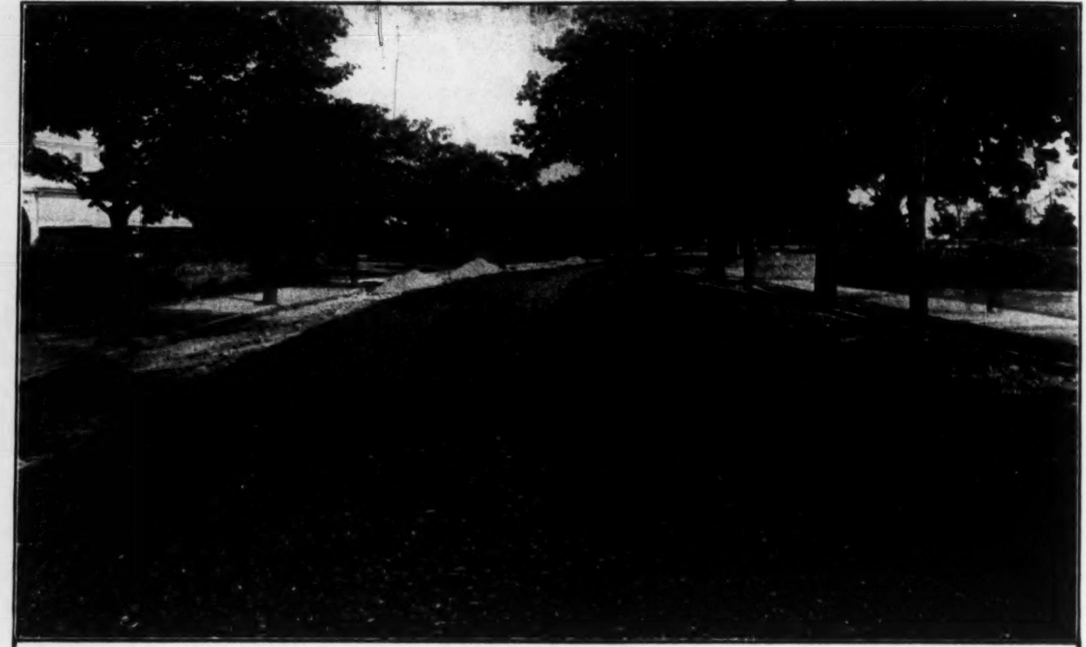
These experienced engineers demand the highest quality of paving materials, and that is why TEXACO ASPHALT is used so extensively in the great cities as well as in the smaller ones!

TEXACO

The Texas Company

Asphalt Sales Dept., 17 Battery Pl., New York City

New York
Philadelphia
Richmond
Boston
Jacksonville
Tampa
New Orleans
Memphis
Chicago
Cleveland
Oklahoma City
Kansas City
Minneapolis
Wichita
Houston
Des Moines



Atlantic Ave., Swampscott, Mass., after application of Standard Macadam Asphalt Binder B, 1½ gals. to the sq. yard by three SOCONY Asphalt Sprayers, full width—27 feet, at one time.

STANDARD
ASPHALT BINDER B
For Penetration Work

SO NY
SOCONY
REG. U.S. PAT. OFF.
ASPHALTS AND ROAD OILS
STANDARD OIL CO. OF NEW YORK

Standard Asphalt Products

Standard Asphalt Binder A *for surface treatment.*

Standard Asphalt Binder B *for penetration work.*

Standard Asphalt Binder C *for the mixing method.*

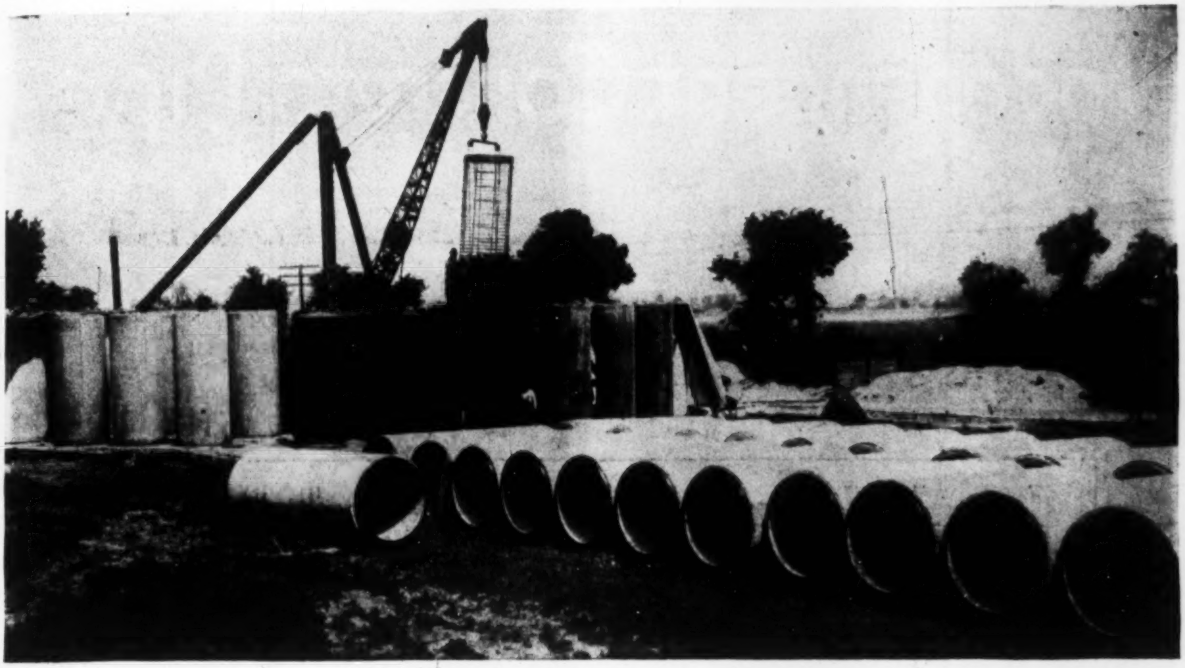
Standard Refined Mexican Asphalt *for sheet and asphalt paving.*

Standard Asphalt Joint Fillers *for brick or block pavements.*

Standard Paving Flux, Standard Bridge Asphalt and Preserving Oils.

Specifications and all other particulars furnished on request

STANDARD OIL CO. OF NEW YORK
26 Broadway



Winnipeg
Denver
Seattle
Hartford
Dallas
Fort Worth
Philadelphia
Norfolk
Baltimore
Kansas City
Milwaukee
Cumberland
St. John, N. B.
etc., etc., etc.

WHEN such Cities as these use Lock Joint Reinforced Concrete *Pressure* Pipe and get perfect satisfaction, (with *Every Joint* an *Expansion Joint*), you can definitely say that it is the equal of any pipe of any material.

LOCK JOINT PIPE COMPANY

Main Office and Manufacturing Plant: Ampere, N. J.

Denver Kansas City Seattle St. John, N. B.
Toronto, Ont., Canada

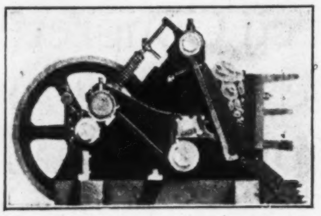
Independent Concrete Pipe

Local Materials
Local Labor
Local Banks

We purchase the first. We employ the second. We deposit our funds in the third. Can you not readily see the advantage to your community?

INDEPENDENT CONCRETE PIPE CO.
INDIANAPOLIS, IND.

Reliance
Road Building and Quarry Equipment



Have established a reputation for continuous SERVICE and satisfaction.

We manufacture a complete line including *Crushers, Elevators, Screens, Bins, Sweepers, Car-Unloaders, etc.* Write for Catalogue.

UNIVERSAL ROAD MACHINERY CO.
Kingston, N. Y.
141 Milk St., Boston, Mass.; 114 Liberty St., New York, N. Y.
"RELIANCE" LABOR SAVING MACHINERY

DELAWARE
CLAY PRODUCTS
PERMANENT IMPERVIOUS ECONOMICAL DURABLE

Let's Prove This Mark

Our customers will tell you that this trade mark stands for the best in quality, service and price. But that's not first hand information.

Let us prove it to you direct.

You can't tell how excellent the quality of our products, how fair the price and how ideal the service until you have actually placed an order in our hands for execution.

Then only can we prove to your entire satisfaction that our plants—the largest and best equipped in Pennsylvania and Ohio, with a daily capacity of 100 cars—are accustomed to making QUICK deliveries of highest quality products at fair prices.

Wire or write.

Sewer Pipe 3-in. to 36-in. and 2 to 3-ft. lengths, Culvert Pipe, Flue Lining, Wall Coping, Drain Tile, Hollow Tile, Fire Brick, Fire Clay.

The Delaware Clay Products Company
807 Westinghouse Building, Pittsburgh, Pa.

Standard Since 1885

VITRIFIED SALT GLAZED
SEWER PIPE
W.S. DICKEY CLAY MFG. CO.
Kansas City, Mo.

2074

Consistent, Unfailing Service.

TRADE UNITED MARK

HIGH PRESSURE
Reinforced Concrete Pipe

built where it is to be laid, with Local Labor and Materials. Sizes from 24 inch up. Unlimited pressure. Your own specifications complied with. Sewer pipe also.

Send for Literature

United Concrete Pipe Co.
29 Broadway, New York

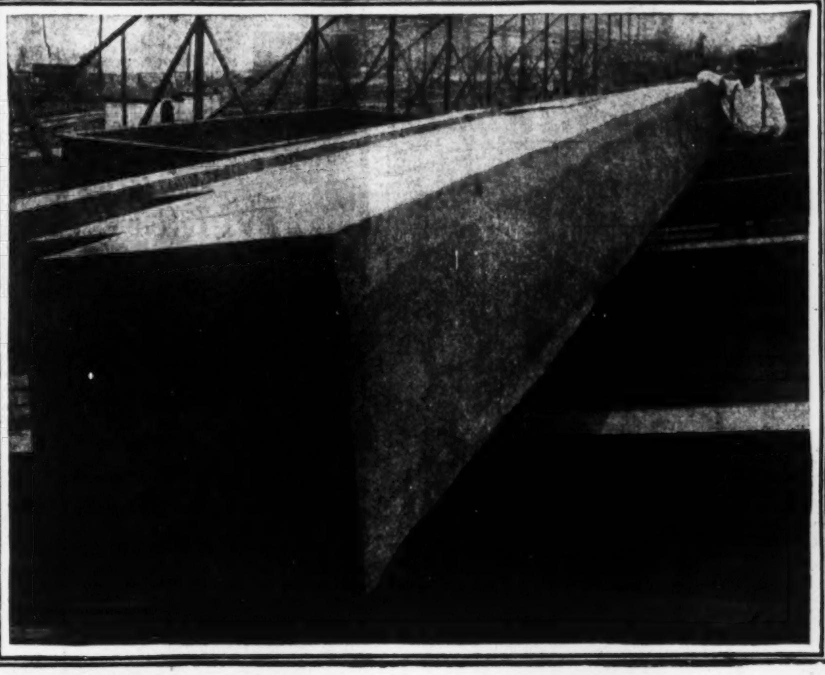
NEWPORT CULVERTS

of Genuine Open Hearth Iron, with a proper admixture of Copper and generous coating of Spelter, are daily making new friends and substantiating our claims for superior strength and durability

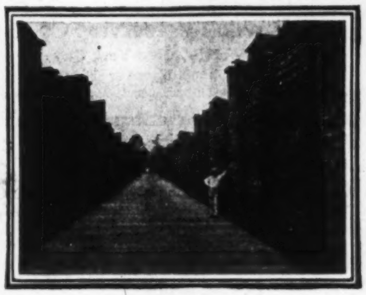
THE NEWPORT CULVERT CO., INC.
841 West Tenth St., Newport, Ky.

Better Southern Pine

was never cut than we are cutting now



PHOTOS
AMERICAN
LUMBERMAN



IN construction that puts unusual strain and wear upon the materials used, Southern Pine lumber and timbers have been *standard* among careful builders for a century.

The nine great mills, which supply the products marketed by Exchange Sawmills Sales Company, never milled better Southern Pine than they are cutting now. To splendid virgin timber, these mills add a thoroughly modern manufacturing process and insist above all upon adhering to the strictest grading rules. This accounts for the outstanding uniformity of lumber and timbers from our sales offices.

For Railroads
Bridge and Trestle Timbers, Flooring, Roofing, Siding, Lining, Sills, Framing, Sawn Ties. We make a specialty of bridge stringers.

For Factory Builders
Close Grained virgin long leaf timbers and heavy lumber for slow combustion construction.

LONG AND SHORT LEAF SOUTHERN PINE
Yard and Shed Stock and Heavy Structural Materials.

EXCHANGE SAWMILLS SALES CO.

Long Building | **Formerly Missouri Lumber & Land Exchange Company.** | **Kansas City, Mo.**

Sales Department for

Louisiana Long Leaf Lumber Co., Fisher and Victoria, La.
Forest Lumber Company, Oakdale, La.
Louisiana Central Lumber Co., Clarks and Standard, La.
Louisiana Sawmill Co., Inc., Glenmora, La.
White-Grandin Lumber Co., Inc., Slagle, La.

The Most Efficient Timber Handling Plant in the World.

LAWSON & MACMURRAY
LUMBER & TIMBER
HOBOKEN Offices, Mills & Yards NEW JERSEY

15.000.000. feet always in stock for immediate delivery

Kreodone EVERLASTING
WOOD BLOCK FLOORS

Everlasting because they are treated with PURE CREOSOTE OIL. Let us tell you why Kreodone Creosote Oil is free from adulteration.

REPUBLIC CREOSOTING CO., Indianapolis, Ind.
Plants: Indianapolis Minneapolis Mobile Seattle Norfolk
See our full page next week

CREOSOTING
EPPINGER & RUSSELL CO.
Office: 165 Broadway, New York

TREATING PLANTS at JACKSONVILLE, FLA., and LONG ISLAND CITY, NEW YORK.

MANUFACTURING PLANTS in FLORIDA. PRODUCTS, Yellow Pine Lumber, Timbers, Ties, Piles, Telegraph Poles, etc., also Cypress.
LARGE STORAGE YARDS and DOCKS, free WHARVES.

WE SOLICIT YOUR INQUIRIES

For City Streets and Country Roads
WIRE-CUT LUG BRICK
Best by Government Test
Made by reputable paving brick manufacturers and available everywhere.
THE DUNN WIRE-CUT LUG BRICK COMPANY
Conneaut *(Licensors)* **Ohio**

S.P.F. REG. U.S. PAT. OFF. CARBOLINEUM
CARBOLINEUM
For brush, spray and open tank treatment
S. P. F. Wood Preserving Co., Inc.
76 Wall St., New York City
Telephone Hanover 1971

Annual Charge Against Treated Timber
is the title of Bulletin 40 now in press. It answers the question of "Will it pay" or "How much can I afford to send for a preservative treatment"? Do you wish a copy? We produce as primary products standardized grades of wood preservatives for surface treatments—brush, spray or open tank.
Protexol COAL TAR PRODUCTS
PROTEXOL CORPORATION
Successor to
CARBOLINEUM WOOD PRESERVING COMPANY
35 Barclay St., New York, N. Y.
Works: Kenilworth, N. J.

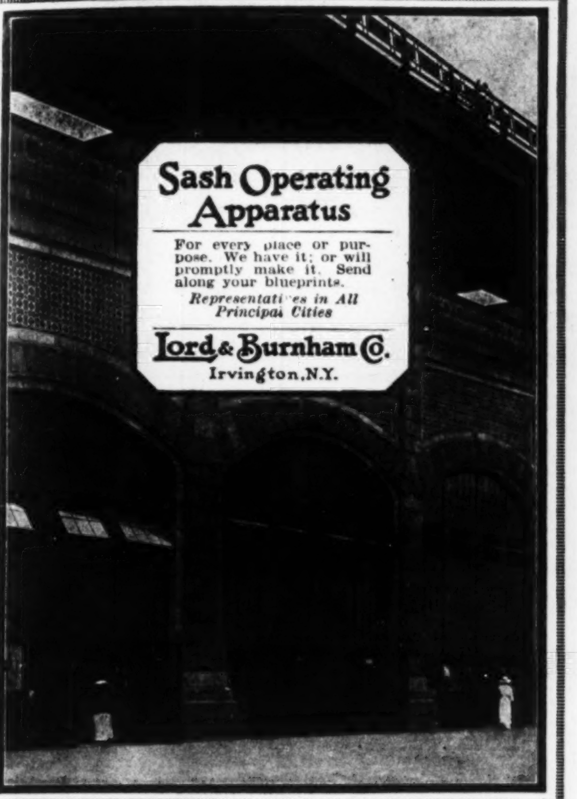
WE CREOSOTE railroad ties, piles, poles and wood paving blocks in any quantity at our NEWARK, N. J., plant. We can make deliveries at the buyer's convenience, as we keep a large stock of untreated material on hand. Our prices will satisfy you. American Creosoting Company, 17 Battery Place, New York.

Pulverized Coal Installations
ENGINEERING
Plans, Estimates, Construction
Physical and Chemical Tests of Materials.
Examinations of Properties. Appraisals.
F. L. SMIDTH & COMPANY, Engineers
50 Church Street, New York

American Creosote Works
INCORPORATED
New Orleans, La. (Station B)
Creosoted cross arms, Lumber, Paving Blocks, Piles, Poles and Ties. Private free wharf for ocean vessels at New Orleans. Capacity 100 million feet board measure annually.
Plants at New Orleans, La., Louisville, Miss., and Winnfield, La.

Has Made Good
LETTENEY
REG. U.S. PAT. OFF.
WOOD PRESERVATIVE
For 53 Years
Complies completely with Standard Specifications for Carbolineum and Similar Wood Preserving Oils.
THE NORTHEASTERN COMPANY
Boston New York

The Wyckoff Pipe & Creosoting Co., Inc.
General Creosoters—Established 1881.
Creosoted Wood Block, Conduit, Cross-Arms, Anchor Blocks, Poles, Cross-Ties, Piling, Wharf Timbers, Bridge Timbers, Lumber, etc., Water Pipe, Steam Pipe Casings, Liquor Log.
Main Office: 17 East 42nd Street, New York, N. Y.
Factory: Portsmouth, Virginia

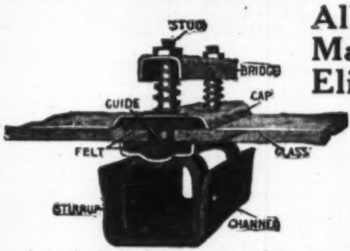


Sash Operating Apparatus

For every place or purpose. We have it; or will promptly make it. Send along your blueprints.

Representatives in All Principal Cities

Lord & Burnham Co.
Irvington, N.Y.



All Perishable Materials Eliminated

The basic idea behind the Anti-Pluvius Puttyless skylight, since the day it was patented, has been *the elimination of all perishable materials.* Our new catalogue, 20-E, describes it in every detail. A copy on request.

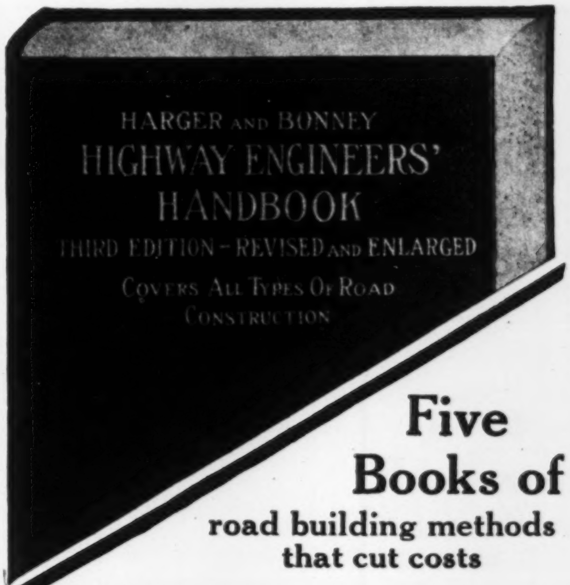
The G. Drouvé Co.
Bridgeport, Conn.

ASBESTOS

We are miners and shippers of Crude Asbestos in any quantity. We produce all grades at our world-famous **BELL ASBESTOS MINES**, in Canada. We also card fibres, spin yarns, weave cloths, and make all sorts of Asbestos products.

For anything you want in Asbestos, turn to

KEASBEY & MATTISON COMPANY
Dept. S-4. AMBLER, PENNA., U. S. A.
Owners of the world's largest Asbestos Mines


HARGER AND BONNEY
HIGHWAY ENGINEERS' HANDBOOK
THIRD EDITION—REVISED AND ENLARGED
COVERS ALL TYPES OF ROAD CONSTRUCTION

Five Books of road building methods that cut costs

1 *Harger & Bonney*—
Highway Engineers' Handbook
New Third Edition, 986 pages, pocket size, flexible, $5.00 net, postpaid.

The new third edition of this well-known and widely-used handbook gives you the best practical data on road building. It is a field book—pocket size.

2 *Harger*—
The Location, Grading and Drainage of Highways
294 pages, 6 x 9, illustrated, $3.50 net, postpaid.

A discussion of general principles governing the policy of highway programs. The book covers scope of the program, general character of the system, classification, layout, appropriation, estimates, fundamental principles of design, and reasonable economy in design. It develops the detail theory of economic location and grade line design from the standpoints of both horse and motor traffic.

3 *Ketchum*—
Design of Highway Bridges of Steel, Timber and Concrete
New Second Edition, 566 pages, 6 x 9, flexible, 340 illustrations, 7 folding plates, 140 tables, $6.00 net postpaid.

In this new, completely revised edition of this standard treatise on highway bridge construction, the scope of the work has been extended so that the book now covers the design of concrete and timber highway bridges as well as steel highway bridges.

4 *Agg*—
Construction of Roads and Pavements
463 pages, 6 x 9, illustrated, $4.00 net, postpaid.

A concise presentation of approved practice in the construction of roads and pavements and of the principles involved. It covers selecting, testing and assembling materials, and incorporating them in the roadway surface.

5 *Agg*—
American Rural Highways
138 pages, 5½ x 8½, illustrated, $2.00 net.

Covers rural highway construction and maintenance.

Free Examination Coupon

McGraw-Hill Book Company, Inc., 370 Seventh Avenue, New York
You may send me on 10 days' approval—

....

....

....

I agree to pay for the books or return them postpaid within 10 days of receipt.

Member Am. Soc. C.E.?....Subscriber to Eng. News-Record?....

Signed ....
Address ....
Official Position ....
Name of Company...

(Books sent on approval to retail purchasers in U. S. and Canada only.)
N-R. 12-29-21

QUALITY SERVICE

VULCANITE PORTLAND CEMENT CO
PHILADELPHIA BOSTON NEW YORK

Why not clean Cement Bags scientifically and save all the cement?

Ascertain the condition of each bag as cleaned.
Bale them at the same time.

THE NET RESULT is cleaner bags at a lower cost, hence a greater saving.

The improved working conditions are appreciated.

We supply hand or power operated machines. A light socket is all that is needed for power machine.

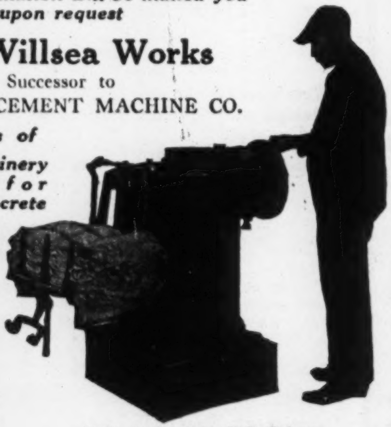
Several years of success as evidenced by repeat orders from substantial firms.

A descriptive circular giving prices and further information will be mailed you upon request

The Willsea Works
Successor to
CENTURY CEMENT MACHINE CO.

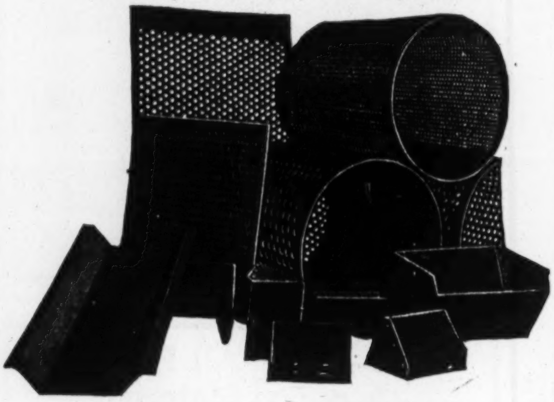
Manufacturers of Special Machinery and Machines for Making Concrete Blocks and Trimming Stones.

60 Brown's Race
Rochester
N. Y.



Style A Hand or Belt Driven

Perforated Metal Screens
for
Stone, Gravel, Sand, Etc.



ELEVATOR BUCKETS
TANKS, SMOKESTACKS
Conveyor Trough and Flights
GENERAL SHEET AND
LIGHT STRUCTURAL WORK
Light and Heavy Steel Plate Construction

Write for your copy of our Hand Book

Hendrick Manufacturing Co.
73 Dundaff Street, Carbondale, Penna.
New York Office: 30 Church Street
Pittsburgh Office: 915 Union Bank Bldg.
Hazleton, Penna.; 705 Markle Bank Bldg.

PENNSYLVANIA
PORTLAND CEMENT

Highest Quality

Manufactured by

Pennsylvania Cement Co.

New York Boston Philadelphia Buffalo

Business Established 1832

The Lawrence Cement Co.
No. 302 Broadway New York

Selling Agents for

Dragon
PORTLAND CEMENT

In Successful Use Nearly a Third-Century

STEEL BARS
FOR
REINFORCING CONCRETE
WE MANUFACTURE
PLAIN, TWISTED AND DEFORMED
SQUARES—ALSO PLAIN AND
DEFORMED ROUNDS

BARS CUT TO EXACT LENGTHS WITHOUT EXTRA CHARGE
BENDING DONE AS REQUIRED

IMMEDIATE DELIVERIES ASSURED—ALL SIZES CARRIED IN STOCK

BUFFALO STEEL COMPANY
TONAWANDA, NEW YORK

MISSISSIPPI
WIRE GLASS

For protection against Fire
and Breakage

Mississippi Wire Glass Co.
218 Fifth Ave.,
New York

Chicago St. Louis

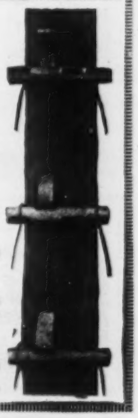
M & M
ADJUSTABLE FORM CLAMPS
for wall or column forms
SIMPLE—DURABLE—LABOR SAVERS

Use Them on Every Job
and Make More Money

A free sample and illustrated catalog will be sent on request.

M & M Clamps are made in two sizes No. 1 for 4 x 4's or 4 x 6's—No. 2 for 2 x 4's or 2 x 6's.

M & M FORM CLAMP CO.
2 Fifth St., S. E. Minneapolis,, Minn.



"ANTI-HYDRO"
FOR PERMANENT CONCRETE
HARDENS WATERPROOFS

FOR HARDENING & WATERPROOFING CONCRETE

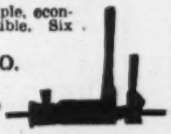
A liquid integral hardener Makes concrete dustless and waterproof. Used successfully for sixteen years. Write for details.

ANTI-HYDRO WATERPROOFING COMPANY
New York Office, 299 Broadway. Laboratory, Newark, N. J.

UNIVERSAL FORM CLAMPS

For all kinds of concrete forms. Speedy, simple, economical, secure. Low in first cost. Indestructible. Six sizes. Write for free sample and prices.

UNIVERSAL CLAMP CO.
15 N. May St., CHICAGO
George Bendixen, Representative
51 East 42nd St., N. Y.



LACLEDE STEEL COMPANY
St. Louis, Mo.
CONCRETE REINFORCING BARS

Works:
Madison, Illinois
Alton, Illinois
East St. Louis, Ill.

General Offices:
1317 Arcade Building
St. Louis, Mo.
Chicago Office: 208 S. La Salle Street
Kansas City Office: 228 Scarritt Bldg.

LIVING—STONE

CEMENT BOND

OUR TRADE MARK SINCE 1905

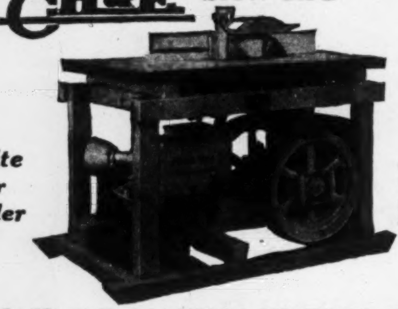
The Perfect Bond
for Concrete

Contains no acid. Therefore cannot injure concrete or steel. Forms a bond stronger than the concrete itself.

Catalog on request

THE LIVING-STONE CO.
1 East Lee St., Baltimore, Md.

CH&E SAW RIG



Write for Folder

6 Sizes.

Immediate Shipment.

C. H. & E. MANUFACTURING CO.
250 Mineral St., Milwaukee, Wis.

SONNEBORN PRODUCTS

Concrete dust ruins machinery and merchandise.
It shows that the concrete floor is disintegrating.

LAPIDOLITH
TRADE MARK

Makes Concrete Floors
Dustproof and Wearproof

Over 200,000,000 square feet of concrete floors lapidolized thus far.

Write for samples and testimonials to Dept. 6

L. SONNEBORN SONS, Inc.
264 Pearl St., New York

SONNEBORN

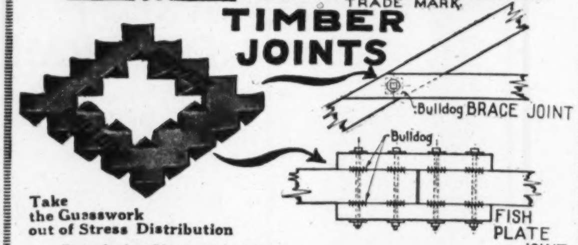
The Hard-n-tyte Specification

HARD-N-TYTE
For CONCRETE and MORTARS

is a valuable guide for the contractor, engineer or architect in producing dustless, wear-resistant concrete floors. It covers every detail of construction, and will be sent at your request.

General Chemical Company
25 Broad Street New York
GC-28

MIDWEST BULLDOG
TRADE MARK
TIMBER JOINTS



Take the Guesswork out of Stress Distribution

Descriptive Matter on request

MIDWEST STEEL & SUPPLY CO., INC.
Box 1601, 26-28 W. 44th Street, New York City

Steelcrete
TRADE MARK REGISTERED

CONCRETE REINFORCEMENT

FLAT SHEETS, readily handled, quickly placed — Steelcrete, the ideal reinforcement.

The Consolidated Expanded Metal Co's
BRADDOCK, PA.
Pittsburgh Chicago Phila. New York

—Will Outlast the Building—
American Cement Tile Roofing

is being used wherever durability and ultimate economy are considered.
We can satisfy your roofing requirements.

AMERICAN CEMENT TILE MFG. CO., Oliver Bldg., Pittsburgh, Pa.
New York Philadelphia Cleveland Birmingham

NEMCO PRODUCTS

Kno-Burn

EXPANDED METAL LATH

Northwestern Expanded Metal Co.
900 Old Colony Bldg. Chicago

SIDE WALL STEEL SASH

All types for factory, power house and office. Continuous steel sash for monitors and sawtooth construction. Operating devices for all types of movable sash and doors. Steel skylight and ventilators, steel office partitions, hinged steel doors, sliding steel doors.

STEEL CONSTRUCTION FOR LIGHT AND VENTILATION IN BUILDINGS

ALLISON STEEL PRODUCTS CO.
CHESTER, PA.

The Underpinning & Foundation Co. **290 Broadway, New York City**

Difficult Foundations

Pneumatic, Steel, Concrete and Wooden Pile Foundations. Bridge Piers; Underpinning Heavy Buildings.

"HERCULES" STEEL PILES

Parsons, Klapp, Brinckerhoff & Douglas

84 Pine St., New York
WM. BARCLAY PARSONS
EUGENE KLAPP

Hanna Bldg., Cleveland
HENRY M. BRINCKERHOFF
WALTER J. DOUGLAS

Engineers—Constructors—Managers

Design, Estimates, Supervision, Operation and Management, Examination and Reports

---

"T e Pile With a BIG Foot"

M ARTHUR PEDESTAL PILE-

The MACARTHUR METHOD insures maximum foundation safety under every working condition and in all kinds of soil.

Complete information on request.

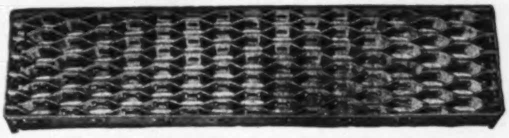
MacArthur Concrete Pile & Foundation Co.
12 John Street, New York City

Telephone Cortlandt 348

Smith, Hauser & MacIsaac, Inc.
CONTRACTORS
18 East 41st Street, New York, N. Y.

Aqueducts, Subways, Dams, Railroad Work, Docks and Piers, Shafts and Tunnels.

UNIVERSAL Safety Grating



Greater Strength—Greater Rigidity
Lighter Construction

A hexagonal mesh-work of iron bars firmly attached at all points of contact by a special method of clamping members to each other and to the outside framework.

No loss of tensile strength or weakening of members.

The tongues or flanges that clamp the members *fill the vertical openings*. By this form of attachment all rivets *are eliminated* and the entire platform or step surface is firmly interlocked and held rigidly at all points.

No rivets to work loose. Entire step surface stays rigid and firm at all points. For spans of great length, transverse bars may be embodied as reinforcement.

Wherever you want a firmer, more rigid, *troubleproof* grating—use the UNIVERSAL rivet-less.

Write for pamphlet

Universal Safety Tread Co.
40 Court St., Boston, Mass.

Small Stock of S. M. C.

S.
M.
C.

Covers a wide range of Beam Flanges

Two sizes fit all beam flanges up to 9¼ in. wide which greatly simplifies installing. Contractor can keep a small stock of S.M.C. instead of a large number of sizes. S.M.C. is the soffit material that automatically locks in place, extending well beyond the beam flanges. Does not block flow of concrete. Renders sure protection to beams in case of fire. Prompt shipments.

Mitchell-Tappen Co.
15 John St., New York City

Barriers of Steel
Afco Fences

See our full page advertisement in the first issue of each month.

American Fence Construction Co.
130 W. 34th Street, New York, N. Y.

SHEETS

KEYSTONE
COPPER STEEL

American Bessemsr—Open Hearth—Keystone Copper Steel
Black Sheets, Galvanized Sheets, Special Sheets, Corrugated Sheets, Formed Roofing Products, Tin and Terne Plates, Etc.

AMERICAN SHEET AND TIN PLATE COMPANY, PITTSBURGH, PA.

IRVING SUBWAY (PATENTED) TRADE MARK
THE FIREPROOF VENTILATING FLOORING

IRVING SAFSTEP
TRADE MARK (PATENTED) REG. U.S. PAT. OFF.
ABSOLUTELY NON-SLIPPING ALWAYS

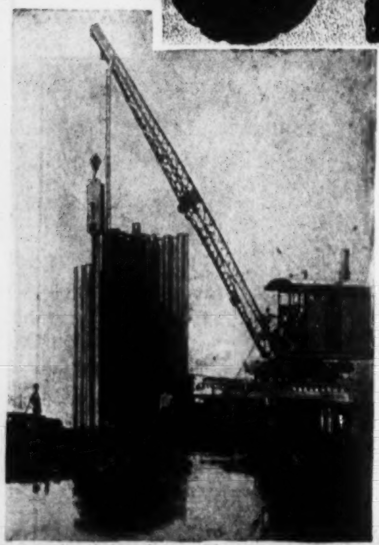
Safe, Comfortable, Serviceable

Your foot won't slip on a **Safstep**—even with water, oil or grease upon it. You can use a stair or ladder of **Safsteps** with confidence and comfort—you can hurry, up or down. And each **Safstep** is a self-contained unit with its own carrier, easily installed in any type of construction. Its non-slipping quality is a permanent inbuilt feature, lasting as long as the step itself. And the life of a **Safstep** is the life of steel—which means serviceability. Write us for Catalog 3A5.

IRVING IRON WORKS CO.
LONG ISLAND CITY, N.Y., U.S.A.
Manufacturers of

IRVING SUBWAY
TRADE MARK (PATENTED) REG. U.S. PAT. OFF.
THE FIREPROOF VENTILATING FLOORING

UNION



"Your No. 3 UNION is again proving its advantage over the drop hammer and follower"—

wrote the contractor on the job pictured—name on request. Yes Sir! Unions use air or steam, and drive and PULL

Agents in Principal Cities

Union Iron Works, Inc. Hoboken, N.J.

Here's an example of Real Driving

Listen!

Doullut & Williams, Inc., New Orleans Contractors, have this to say about the McKiernan-Terry No. 11-B Hammer:

"Our work on the Standard Oil Co., Wharf, Baton Rouge, La., has progressed very successfully. We have driven all our 110 ft. to 130 ft. piles without difficulty."

Driving without difficulty is the experience of all McKiernan-Terry Pile Hammer users. This applies not to any particular locality but everywhere throughout the world. You'll find a few reasons why in Bulletin 28.

DOULLUT & WILLIAMS INC No 51

McKIERNAN-TERRY DRILL COMPANY

Rock Drills - Pile Hammers - Lifting Jacks
Mining and Quarrying Machinery

13 PARK ROW, NEW YORK

Works at Dover, N. J.

Agencies in the Following Cities:
Boston Chicago Pittsburgh Cleveland Detroit St. Paul San Francisco Columbus, O. New Orleans Philadelphia

Foreign Representatives: **British Steel Piling Co., London, Eng.**
Canadian Representatives: **Canadian Allis-Chalmers, Ltd., Toronto, Ont.**

NATIONAL PILE HAMMER

National Hammers

The Greatest Penetration in the Shortest Possible Time

In every kind of work where materials of one form or another must be driven, National Hammers will give the greatest penetration in the shortest possible time.

It is not unusual for our hammers to drive 80 foot Batter Piles to a depth of 50 feet penetration in 10 minutes.

For a time saver and a profit increaser, there is but one answer—National Pile and Sheeting Hammers.

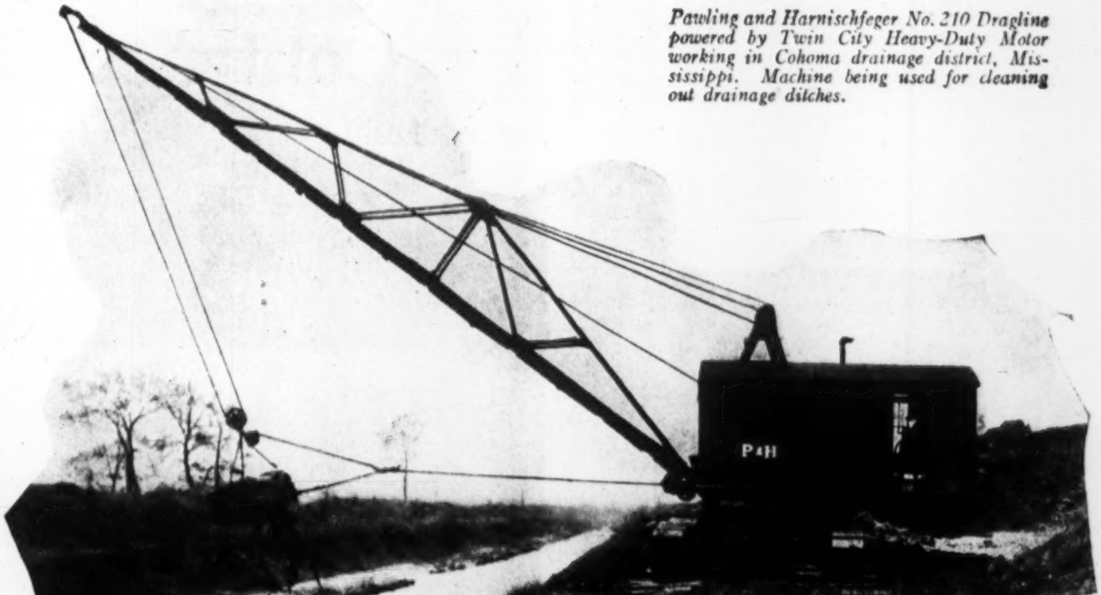
Send for new complete catalog.

HOISTING ENGINES, TOO!

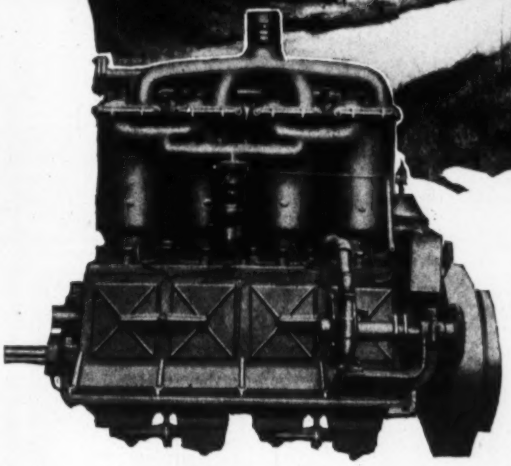
No Sir,
No Hammer
Has
More
Features

National Hoisting Engine Company
Office and Works:
Harrison, New Jersey

NATIONAL



Pawling and Harnischfeger No. 210 Dragline powered by Twin City Heavy-Duty Motor working in Cohoma drainage district, Mississippi. Machine being used for cleaning out drainage ditches.



Steady Power Under Severe Conditions and Sudden Changes of Load

Twin City heavy-duty engines have proved efficient and economical power plants on many kinds of heavy-duty portable machinery for the past twelve years. Twin City engines deliver a continuous and dependable flow of power even under sudden load changes.

Sizes:

4¼x6 four-cylinder
5x7½ four-cylinder
5½x6¾ four-cylinder
6¼x8 four-cylinder
7¾x9 four-cylinder
7¼x9 six-cylinder

Minneapolis Steel & Machinery Co.
General Offices and Works
MINNEAPOLIS, U. S. A.
In Writing Address Dept. M
Eastern Office—Woolworth Bldg., New York
Sales Offices in Leading Cities in United States

A Few Manufacturers Whose Machines Are Powered With Twin City Engines

Industrial Works, Bay City, Mich. Crawler Type Cranes.
Clyde Iron Works, Duluth, Minn. Hoists.
Buckeye Traction Ditcher Co., Findlay, Ohio. Trenching Machines.
Brown Hoisting Machinery Co., Cleveland, Ohio. Locomotive Cranes.
Bay City Dredge Works, Bay City, Mich. Material Handling Cranes.
Armstrong Mfg. Co., Waterloo, Iowa. Well Drilling Machines.
American Hoist & Derrick Co., St. Paul, Minn. Locomotive Cranes.

TWIN CITY

Heavy-Duty Gasoline Engines

Core Drilling by Contract

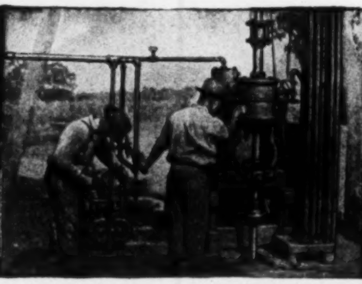
—with Sullivan Diamond Drills,—

will answer the question "where's the Bedrock—and what is it like?"—before you set your bridge piers or start work on your new dam.

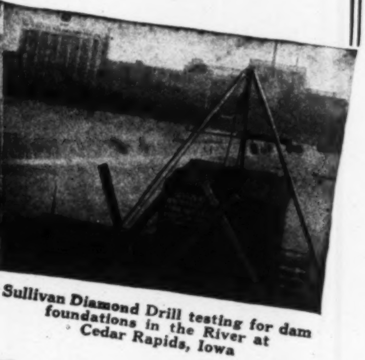
The Sullivan contract drilling department has modern outfits and skilled crews ready to drill anywhere, in any formation. 37 years' experience.

Booklet 4122.

Sullivan Contract Drill Making Test Borings at the Wilson Dam Site, Widow's Bar, Tennessee River



Sullivan Diamond Drill in Southern Illinois (From U. S. Bureau of Mines Motion Picture "The Story of Coal")



Sullivan Diamond Drill testing for dam foundations in the River at Cedar Rapids, Iowa

Sullivan Machinery Company

124 So. Michigan Ave., Chicago **30 Church St., New York**

PARSONS

PARSONS trench excavators are built with the necessities of all contractors in mind.

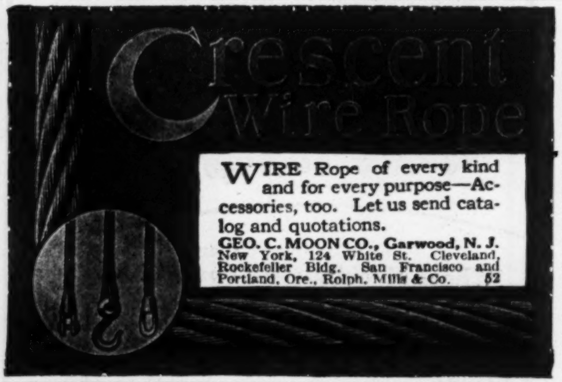
You can depend upon a Parsons whether they are used in wet sticky soils or in hard clay, in fact, in any material not solid rock.

They are simple to operate and maintenance charges and operating costs are low. You will get years of satisfactory service from a Parsons and you will like Parsons Service and Parsons Policy.

Write for descriptive literature

The Parsons Company
Newton, Iowa
New York *Chicago*

EXPORT DEPARTMENT
ALLIED MACHINERY COMPANY OF AMERICA



Crescent Wire Rope

WIRE Rope of every kind and for every purpose—Accessories, too. Let us send catalog and quotations.

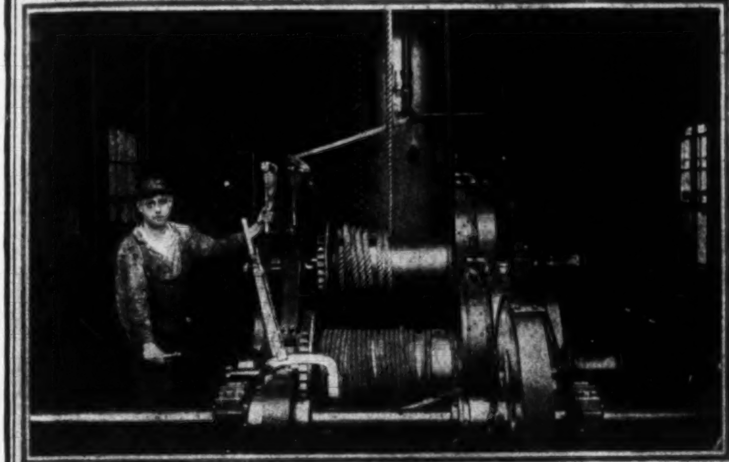
GEO. C. MOON CO., Garwood, N. J.
New York, 124 White St. Cleveland, Rockefeller Bldg. San Francisco and Portland, Ore., Rolph, Mills & Co. 52

P&H

TRENCH & DRAGLINE EXCAVATORS
PORTABLE CRANES
PAWLING & HARNISCHFEGER CO.
MILWAUKEE, WIS.

VULCAN IRON WORKS
327 NO. IRVING AVE. CHICAGO
PILE DRIVERS

LIDGERWOOD HOISTS



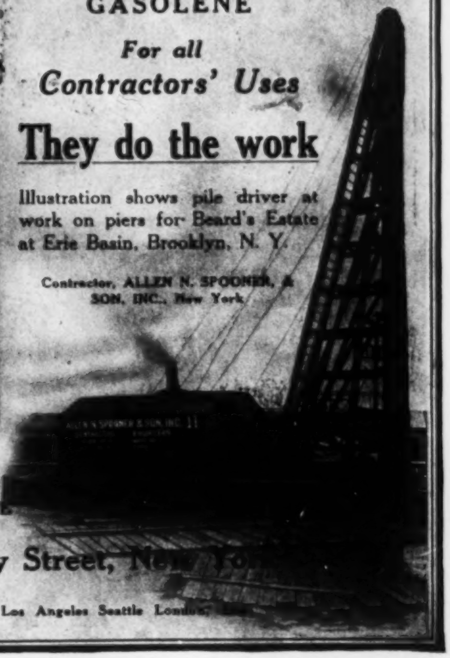
STEAM—ELECTRIC
GASOLENE

For all
Contractors' Uses

They do the work

Illustration shows pile driver at work on piers for Beard's Estate at Erie Basin, Brooklyn, N. Y.

Contractor, ALLEN N. SPOONER, & SON, INC., New York



DERRICKS—PILE DRIVERS—CABLEWAYS

OUR ENGINEERS ALWAYS AT YOUR SERVICE

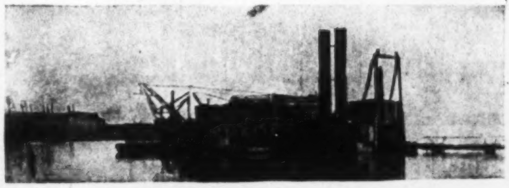
Catalogues upon request

LIDGERWOOD MFG. CO., 96 Liberty Street, New York

BRANCHES

Philadelphia Pittsburgh Chicago Cleveland Detroit Charleston, W. Va. Los Angeles Seattle London, [illegible]

Dredging



Filling, Land Reclamation, Canals and Port Works

River and Harbor Improvements
Deep Waterways and Ship Channels

We are equipped to execute all kinds of dredging, reclamation and port works anywhere in the United States.

CONTRACTORS to THE FEDERAL GOVERNMENT

Correspondence Invited from Southern Officials and Corporate and Private Interests Everywhere.

Largest Plant Longest Experience

Atlantic, Gulf and Pacific Co.

New York
21 Park Row

Houston, Texas
Scanlon Bldg.

Proportioned for Fast Work

Every detail of the Stroudsburg Engine is designed to take full advantage of the 125 pounds boiler pressure.

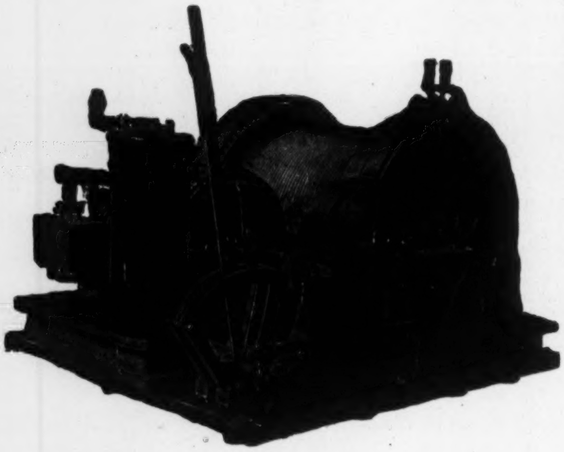
Stroudsburg Hoisting Engines

Ask any Stroudsburg user what kind of service he gets—from the engine and the works.

STROUDSBURG ENGINE WORKS

66 North 3rd Street, Stroudsburg, Pa.

For the Important Jobs—
Flory Hoists



A Flory Hoist for every purpose

In the shaft equipment for the construction of the 18-mile Shandaken tunnel, Flory Hoists were chosen.

The Catskill Aqueduct jobs generally have shown the reliability and durability of Flory equipment. Many of the hoists in that work are still in use.

Write to the nearest Flory Engineer in regard to your Hoisting Problems. And get the Flory catalog—on request.

S. FLORY MFG. CO., Bangor, Pa.

New York: 95 Liberty St.; Chicago: Monadnock Bldg.; Pittsburgh: House Bldg.; Hartford, Conn.: K. B. Noble Co.; Birmingham, Ala.: Chas. T. Lehman.

FLORY HOISTS

Any of these pamphlets sent to you FREE on request

If you have a material-handling problem, whether in excavating gravel, moving dirt or storing and reclaiming coal, write for our booklets, naming the class of work on which you wish information.

SAUERMAN BROS.
53 W. Jackson Blvd., Chicago

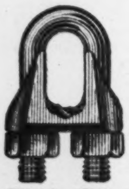
Don't forget the dates of the National Good Roads Show, Jan. 17-20, Chicago

SAUERMAN DRAGLINE CABLEWAY EXCAVATORS
Handling Earth, Clay and Similar Materials

SAUERMAN
DRAGLINE CABLEWAY EXCAVATORS
Their advantages and uses in connection with SAND and GRAVEL PLANTS
SAUERMAN BROS. CHICAGO

SAUERMAN BOTTOMLESS POWER SCRAPERS
HANDLING SAND AND GRAVEL

HANDLING COAL WITH POWER SCRAPERS AND DRAGLINE CABLEWAYS
SAUERMAN BROS. CHICAGO



Plain Clip for Wire Rope and joining square or distorted bars. Universally used and recommended.

This Mark
On a Casting

—means that it's made of Marion certified malleable iron, offering great resistance to shock, having high elastic limit, resisting oxidation, wears better, is free from slag holes, shrinkage cracks, etc., and is not subject to fatigue or crystallization.

Malleable iron castings for every purpose

The Marion Malleable Iron Works
Marion, Indiana

ROBINS CONVEYING MACHINERY

Our bulletins describe the successful solution of many materials-handling problems. Let them help you.

ROBINS CONVEYING BELT COMPANY

New York, 14 Park Row
Chicago, Old Colony Building
Salt Lake City, Newhouse Bldg.
Birmingham, Ala., C. B. Davis Co.
San Francisco, The Griffin Co.
Toronto, Gutta Percha & Rubber, Ltd.

GRAY STRAND WIRE ROPE
ELECTRICALLY WELDED WIRE

Wickwire Spencer Steel Corporation
Worcester, Mass. Buffalo, N. Y.

District Offices and Warehouses
New York Philadelphia Detroit Chicago Boston
San Francisco Tulsa, Okla.

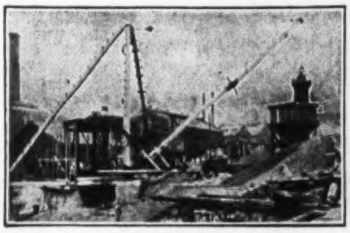
TERRY

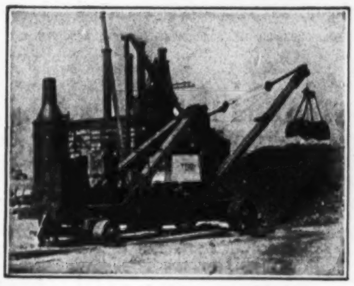
Builders of the highest type

DERRICKS

and

CRANES





TERRY Manufacturing Company

Grand Central Terminal, New York City

Plant—Kearny, Newark, N. J.

American Wire Rope

AND

AERIAL WIRE ROPE TRAMWAYS

Send for Illustrated Catalogue

American Steel & Wire Company

Chicago-New York

AMERICAN STEEL & WIRE COMPANY

Dobbie Derricks

and Hoists

Stock of Fittings, Blocks, Sheaves, Winches, etc., carried by our agents—

G. S. Green Co., New York.
Beckwith Machy. Co., Pittsburgh.
Beckwith Machy. Co., Cleveland.
P. I. Perkins Co., Boston.

DOBBIE Foundry & Machine Co.
Manufacturers
Niagara Falls, N. Y.

GENUINE
CROSBY

They Have Held Safely for Fifteen Years — Still on the Job

In the Great Northern Railway Shops at St. Paul, Minn., they lift locomotives with a 100-ton overhead crane. Six strands of $\frac{3}{4}$-inch cable fastened with Genuine "CROSBY" Clips is used for a lifting sling. The same six Genuine "CROSBY" Clips which were put on this sling fifteen years ago are still there, having held safely at all times, although the weight of the engines lifted runs from 60 to 100 tons.

Every Genuine "CROSBY" Clip is a perfect vise of drop forged steel. Its grip is sure, but does no injury to the rope. Can be inspected at a glance and tightened to take care of rope shrinkage under tension; galvanized.

The safest wire rope fastening.

We want your inquiries. An "American" representative can reach you in 24 hours

American Hoist & Derrick Co.
St. Paul Minnesota

Builders of "AMERICAN"
Hoisting Engines, Electric Hoists, Derricks, Locomotive Cranes, Railroad Ditchers, Logging Equipment, Sugar Cane Machinery, Marine Deck Machinery and Tackle, the Genuine "CROSBY" Wire Rope Clip

New York Chicago Pittsburgh Seattle
New Orleans Detroit

AMERICAN
HOIST & DERRICK CO.

MONIGHAN WALKING DRAGLINES

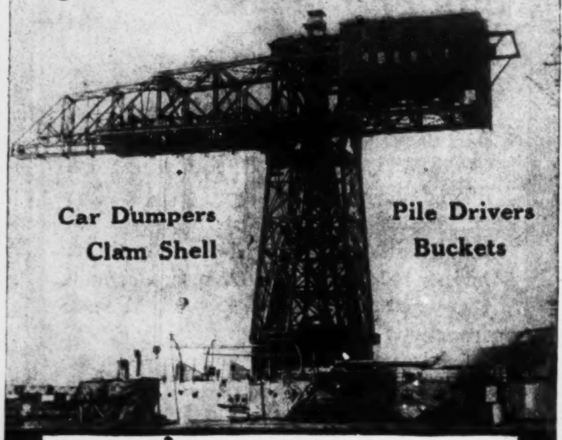
While other excavators are laying track to move up **Monighans** are digging. They travel over any ground that will carry a walking man—they go from one job to another without dismantling and travel at the rate of 40 feet a minute.

You will want to know more about the **Monighan**—your copy of our catalog is ready—ask for it.

Monighan Machine Company
2024 Carroll Ave.
Chicago, Ill.

LOCOMOTIVE CRANES
CLAM SHELL BUCKETS - SHIPBUILDING CRANES
CAR DUMPERS PILE DRIVERS
THE McMYLER INTERSTATE Co.
CLEVELAND OHIO

CRANES
of all types and sizes
from the smallest locomotive crane to the giant shown here. ***Send for Bulletin***



The McMyler Interstate Co.
Cleveland, Ohio

BRANCH OFFICES: New York City, 1756 Hudson Terminal Bldg.; Chicago, Ill., 812 Edison Bldg.; Seattle, Wash., Hoge Bldg.; Denver, Colo., 18th and Wazee Sts., San Francisco, Calif., 407 Merchants Exchange Bldg.; New Orleans, La., 444 Maison Blanche Annex; Birmingham, Ala., Brown-Marx Bldg., Boston, 261 Franklin St.

O. S. DEPENDABLE

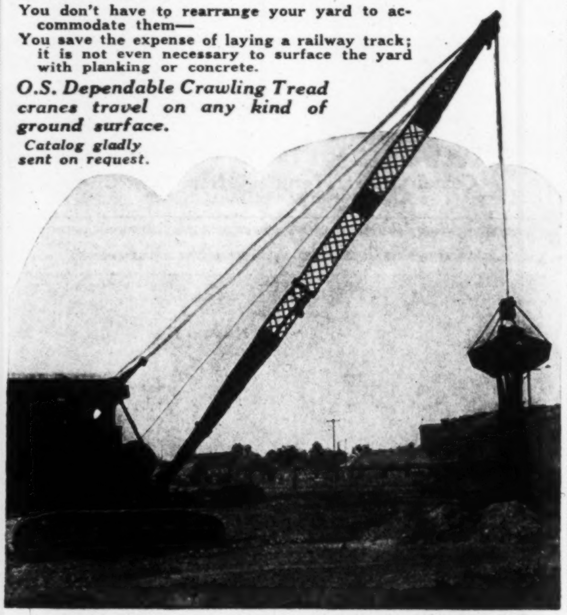
7-Ton and 12-Ton Crawling Tread Cranes

One of the Outstanding Features of the O. S. Dependable Crawling Tread Cranes is the *Initial Economy* effected by their installation.

You don't have to rearrange your yard to accommodate them—
You save the expense of laying a railway track; it is not even necessary to surface the yard with planking or concrete.

O.S. Dependable Crawling Tread cranes travel on any kind of ground surface.

Catalog gladly sent on request.



ORTON & STEINBRENNER COMPANY
Main Office: Chicago, Ill. **Factory: Huntington, Ind.**

LESCHEN

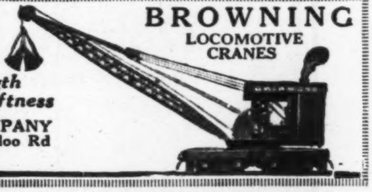
WIRE ROPE

Back of every Leschen Rope are many years of manufacturing experience. We make high-grade wire ropes for all purposes. For heavy service of all kinds we recommend HERCULES (Red-Strand) Wire Rope. If you will tell us how you use wire rope we shall be glad to suggest the correct rope for most economical results.

Established 1857

A. Leschen & Sons Rope Co.
St. Louis, Mo.
New York Chicago Denver San Francisco

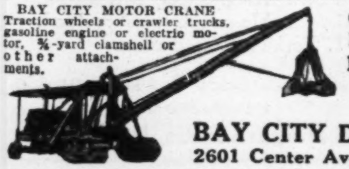
BROWNING
LOCOMOTIVE CRANES



A Giant's Strength With a Wizard's Deftness

THE BROWNING COMPANY
East 162nd St. & Waterloo Rd
Cleveland, Ohio

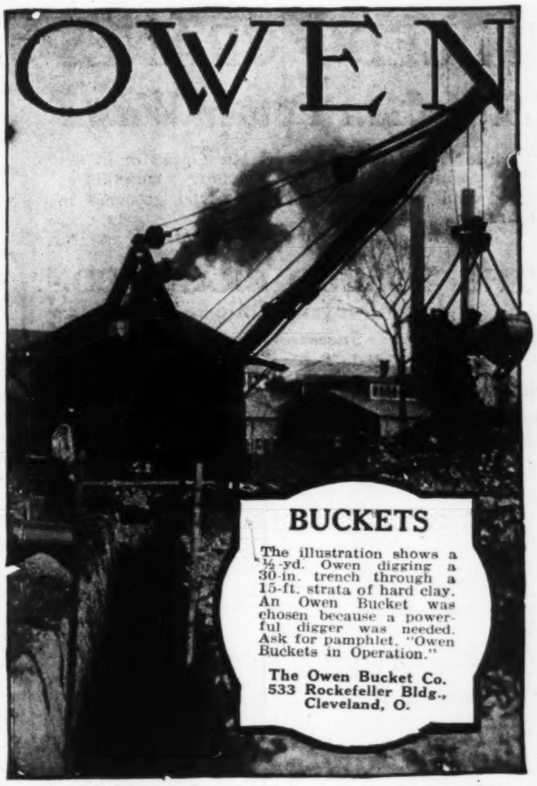
BAY CITY MOTOR CRANE
Traction wheels or crawler trucks, gasoline engine or electric motor, ¾-yard clamshell or other attachments.



CRANES
EXCAVATORS
LAND DREDGES
Walking, Track, Crawler and Floating Type

BAY CITY DREDGE WORKS
2601 Center Ave. Bay City, Mich.

OWEN

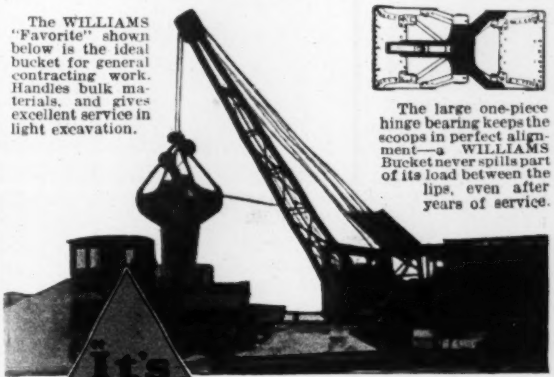


BUCKETS

The illustration shows a ½-yd. Owen digging a 30-in. trench through a 15-ft. strata of hard clay. An Owen Bucket was chosen because a powerful digger was needed. Ask for pamphlet, "Owen Buckets in Operation."

The Owen Bucket Co.
533 Rockefeller Bldg.,
Cleveland, O.

The WILLIAMS "Favorite" shown below is the ideal bucket for general contracting work. Handles bulk materials, and gives excellent service in light excavation.



The large one-piece hinge bearing keeps the scoops in perfect alignment—a WILLIAMS Bucket never spills part of its load between the lips, even after years of service.

"It's a WILLIAMS"

"We have never used any bucket that equals the WILLIAMS,"

Writes Clarence E. Palmer, of R. H. Evans & Co., Columbus, Ohio.

The combined speed and power of the WILLIAMS "Favorite" makes it the ideal bucket for handling sand, crushed stone, coal, etc. The tremendous leverage of the WILLIAMS power arm gives an unusually rapid and positive closing action.

There are many other reasons why the WILLIAMS is the bucket for your excavating or material handling. We will gladly send a finely illustrated, 60-page catalog, showing how WILLIAMS Buckets will serve you. Write us.

G. H. WILLIAMS CO., Erie, Pa., U. S. A.

WILLIAMS
QUICK-ACTING CLAMSHELLS
All Parts Guaranteed Against Breakage

VULCAN

Clamshell and
Orange Peel Buckets

All work from blueprint to finished product done in our own shops.

Dredging Buckets. Hydraulic Dredging Equipment. Complete Dredges. Repairs to all types of Buckets and Dredges. New Catalog—just published—shows in results of 50 years pioneering experience. Send for your copy.

ESTD. 1848

VULCAN IRON WORKS, Inc., Jersey City, N. J.

BYERS Model "10"
Full Circle Crane

OPERATOR can raise or lower the boom *under absolute control* while lifting or dropping bucket, rotating, or traveling. Exclusive Byers feature; many other points just as important—study them *all* in interesting Bulletin, just out.

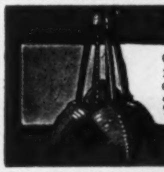
• • •

The Byers Machine Co.
250 Sycamore St., Ravenna, O.
Agents in Leading Cities

Aden Grab Buckets

are so constructed that the counterweight does not come in contact with material, thereby insuring a greater digging power and absolutely no loss of power at any stage of the closing action. *Write for further information.*

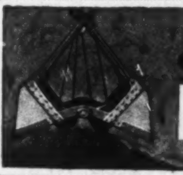
The Advance Engineering Co.
Offices: 6543 Metta Street
Cleveland, O.



HAYWARD

Orange Peel Buckets—the fruition of thirty-five years' experience in building better buckets. Three- or four-sided types with or without cut-off blades. Ask for Catalog 43. 2453-Y
The Hayward Co., 48-50 Church St., New York

BUCKETS

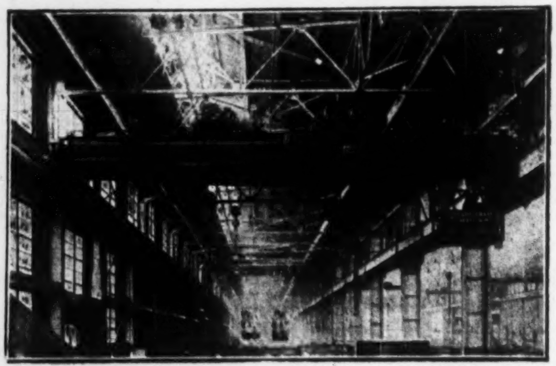


KIESLER
Clam Shell Buckets

Adaptable to all general purposes. Their performance and mechanical excellence has made them the choice. *Send for our bulletins.*

Jos. F. Kiesler Co., Chicago, Ill.

COMPACT—STURDY
When it's done with
OSGOOD
it's done economically
Steam Shovels ¾-6 cu. yds.
The Osgood Co., Marion, Ohio, U. S. A.



"TOLEDO CRANES"

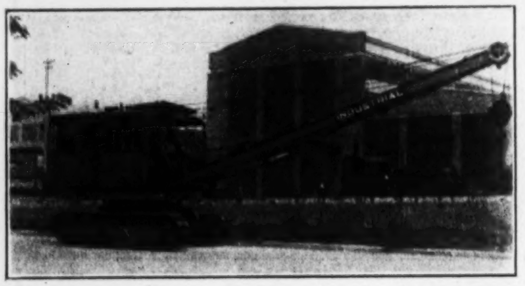
Stop Man Power Waste

"Toledo" standards guarantee, latest practice in design; positive engineering and accuracy; smoothness; speed and power with flexibility and economy in operation.

What are your requirements?

THE TOLEDO CRANE CO.
Bucyrus, Ohio
Successors to
The Toledo Bridge & Crane Co.

INDUSTRIAL CRANES



The Type BC "Industrial" Crawling Tractor Crane presents an ideal solution to the moderate size manufacturing plant's material handling problems because of their all-around utility and surprisingly low cost of owning and operating.

This type of crane is built for gasoline operation. The gasoline crane has many advantages in doing work within its capacity. When it isn't working it isn't eating up fuel. When the job is finished, shut off the throttle and all expense stops until the work starts again

Write today for **Catalog No. 113.**

NEW YORK
50 Church St.
PHILADELPHIA
Widener Bldg.

INDUSTRIAL WORKS
BAY CITY, MICHIGAN

CHICAGO
McCormick Bldg.
DETROIT
Book Building

C. B. Davis Engineering Co., Birmingham, Ala.; J. G. Miller, St. Louis, Mo.; F. H. Hopkins & Co., Montreal, Que.; N. B. Livermore & Co., San Francisco, Cal., Northwestern Equipment Co., Portland, Ore., and Seattle, Wash.

Locomotive Erection and Wrecking Cranes, 5 to 160 tons capacity. Pile Drivers, Pillar Cranes, Transfer Cranes, Rail Saws, Grab Buckets.

OHIO LOCOMOTIVE CRANES

Breakage on one of these fine cranes is practically unknown. Why? 90% Steel Castings.

Ohio Locomotive Crane Co.
101 So. Sandusky Ave.
Bucyrus, Ohio

CLEVELAND CRANES

What's the size of the crane you are figuring on?

If it's anywhere from 250 lbs. to 500 tons CLEVELAND, of course!

The Cleveland Crane & Engineering Co.
WICKLIFFE, O.

50 Church St.,
New York City

First Nat'l Bank Bldg.,
Pittsburgh, Pa.

We Dig and Refill Trenches

For water, sewers, gas, conduits and drains.
Pipe laid by contract and installation of water systems.

Trench Machines and Backfillers For Rent

W. G. FRITZ CO., INC., *Contractors*
256-260 Valley Road, West Orange, N. J.

WELDING WIRE **ROEBLING** CLIPS

WIRE ROPE

John A. Roebling's Sons Co., Trenton, N. J.

NEPTUNE

The Pioneer of Progress

The Trident Oil Enclosed Gear Train Eliminates Corrosion.

Foreign matter cannot lodge in the protected Trident Oil Enclosed Gear Train.

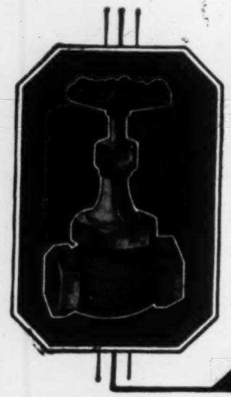
Wear is eliminated by correct lubrication in the Trident Oil Enclosed Gear Train.

The oil around the gears does not freeze in the Trident Oil Enclosed Gear Train.

Greater accuracy — longer life — increased revenue are assured by the Trident Oil Enclosed Gear Train.

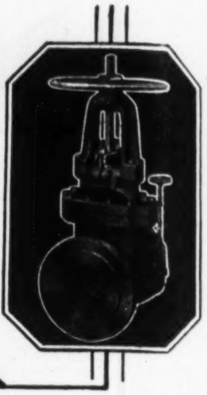
NEPTUNE METER COMPANY
NEW YORK
Pioneers in Meter Progress

TRIDENT INTERCHANGEABILITY APPLIES TO EVERY PART OF EVERY TRIDENT METER



LUNKENHEIMER

Valves and Engineering Appliances

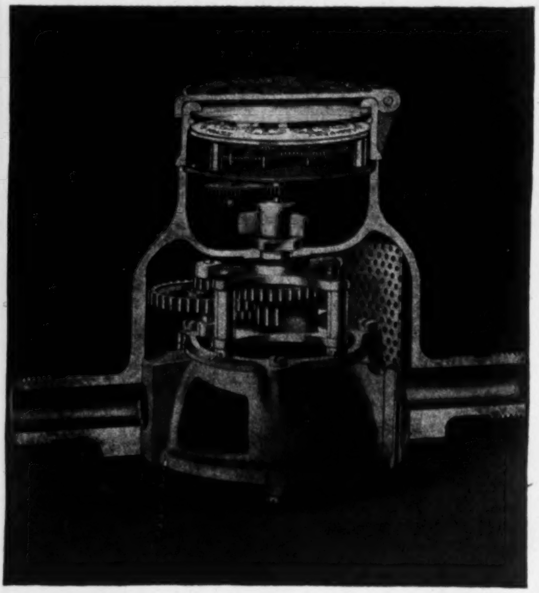


GLOBE, GATE, CHECK,
POP SAFETY, BLOW-OFF,
THROTTLE, SAFETY
NON-RETURN VALVES, ETC.

THE LUNKENHEIMER CO.
"QUALITY"
LARGEST MANUFACTURERS OF
HIGH GRADE ENGINEERING SPECIALTIES
IN THE WORLD
NEW YORK CHICAGO CINCINNATI BOSTON LONDON
EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

WATER COLUMNS, COCKS,
WHISTLES, INJECTORS,
LUBRICATORS, OIL AND
GREASE CUPS, ETC.

SAFETY—ECONOMY—PERMANENCE



The Hersey Disc Meter, Model HF, is the product of thirty-five years of experience and refinement in the manufacture of water meters.

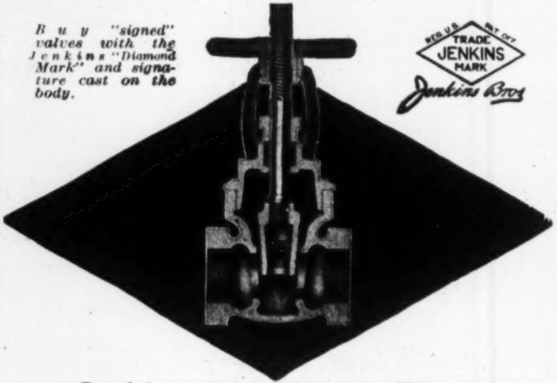
This model in the smaller sizes, together with Model HD in the larger sizes, form a series which excels all meters of all makes in all those essentials which go toward making up an exceptionally desirable meter.

HERSEY MANUFACTURING COMPANY
Boston, New York, Chicago, Columbus, O., Philadelphia, Atlanta, San Francisco

---

Buy "signed" valves with the Jenkins "Diamond Mark" and signature cast on the body.

REG. U.S. PAT. OFF.
TRADE JENKINS MARK
Jenkins Bros



Jenkins Extra Heavy Brass Gate Valves

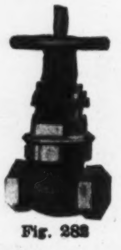


Fig. 282

Sectional view Fig. 282, outside screw and yoke, rising spindle. These valves are very heavy are suitable for steam and water service of all kinds under heavy pressures and high temperatures. Especially adapted for service in modern high pressure power plants. Suitable 250 pounds steam and 400 pounds water, working pressures.

JENKINS BROS.
New York Boston Philadelphia Chicago
Montreal London Havana
FACTORIES: Bridgeport, Conn.; Elizabeth, N. J.; Montreal, Canada.

Jenkins Valves
SINCE 1864

Nicholas Engel

JOHN FOX & CO.

Cast-Iron Water, Gas and Flange Pipe, Special Castings, Fire Hydrants, Valves, General Foundry and Machine Work.

253 BROADWAY NEW YORK CITY

PITTSBURGH FILTERS

Complete equipment

Consult us

PITTSBURGH FILTER & ENGRG. CO.
Pittsburgh, Pa. OIL CITY, PA. Kansas City, Mo.

SLUICE GATES

Shear, Flap and Butterfly Valves

FLEXIBLE JOINTS

COLDWELL-WILCOX CO

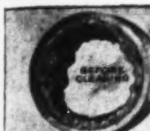
NEW WINDSOR NEWBURGH N.Y.

THE VENTURI METER

For Water, Sewage, Gas, Air, Steam—
in fact everything that flows.

Bulletins on Request.

BUILDERS IRON FOUNDRY,
Providence, R. I.

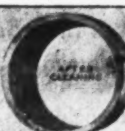


Clean Water Mains

Deliver Full Capacity

We are glad to confer
with municipal officials
or Water Companies.

National Methods are patented



National Water Main Cleaning Company,

84 Church Street
New York

ROBERTS FILTERS WATER FIT FOR USE

WATER-*fit for use*

Filtration and Water
Softening Plants

ROBERTS FILTER MFG. CO.

DARBY, PA. *New York Office Flat Iron Bldg*

GRAVER
Steel
Tank and Plate Work
HEADQUARTERS

Steel Tanks and Steel Plate Work

Water Softeners, Filters and Heaters

Water Softeners for Boiler Feed-Water. Hot Process, Cold Continuous, and Zeolite Softeners. Pressure and Gravity Filters. Water Heaters. We make all successful types.

GRAVER *Corporation*
East Chicago, Indiana

WATER SOFTENING AND FILTRATION PLANTS

INTERNATIONAL FILTER CO.
30 South Dearborn St., Chicago
New York Office: Woolworth Building

WATER SOFTENING AND FILTRATION PLANTS

AMERICAN WATER SOFTENER COMPANY
4th and LEHIGH AVES. PHILADELPHIA, PA.
No affiliation or working agreement with any of our competitors

---

EBG

Liquid Chlorine

Electro Bleaching Gas Co.

PIONEER MANUFACTURERS of LIQUID CHLORINE

Plant NIAGARA FALLS, NY

Main office 18 East 41st Street New York. *Chicago office* 11 So. La Salle St.

Rensselaer VALVE Company

Designers and Builders of 72-in. and Smaller

Hydro-Electric Valves for Throttling and Controlling Conditions

RENSSELAER VALVE CO., Troy, N. Y.

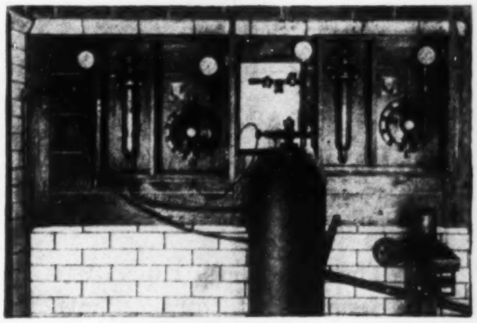
Are You Wasting Time
with a wrench that
slips off the nut?

Use the

"FAVORITE"
reversible ratchet
WRENCH

It grips the nut on all sides

Greene, Tweed & Co.
109 Duane St., N.Y.C.



W & T Equipment used in Sterilizing the Water Supply at Corning, N. Y.

Accuracy Is Essential In Chlorine Control

IN sterilizing water by Liquid Chlorine, it is essential that the control apparatus be absolutely accurate. If it has been determined that a chlorine feed of say five pounds per hour is required, it is fundamental that just five pounds—no more, no less, but precisely five pounds shall be introduced to the water.

This requires that the chlorinator not only feed regularly and continuously, but that the chlorine flow meters be positively accurate.

Absolutely accuracy is obtained by the W & T Chlorinator. All W & T Chlorine meters are hydraulic in principle. If they operate at all, they must operate correctly. The positive accuracy of the W & T Chlorinator is one of the outstanding reasons for its supremacy in the field of water purification.

Write for interesting free literature

Wallace & Tiernan Co., Inc.

Manufacturers of W & T Equipment for Paper and Textile Bleaching and W & T Chlorine Control Apparatus for Swimming Pool Sterilization. Also the Booth Dry Feeder for the application of Pulverized chemicals.

NEWARK, NEW JERSEY

Branch Offices

Chicago
Pittsburgh
Atlanta
Dallas
San Francisco
Kansas City

WALLACE & TIERNAN, LTD., Toronto, Canada

GRAVITY PRESSURE

FILTERS

DRY FEED
CHEMICAL MACHINES

Write for Bulletins 19-2-3

The total daily capacity
of municipal filtration plants
installed by us is
ONE BILLION GALLONS
Supplying 500 communities

THE NEW YORK CONTINENTAL
JEWELL FILTRATION COMPANY
NUTLEY, NEW JERSEY

111 W. Monroe St., Chicago, Ill.
New Birks Building, Montreal.

Originators of Mechanical Filtration

Member Associated Manufacturers of Water Purifying Equipment.

In These Abnormal Times

Information in respect to Commercial Credits and Investment Securities is most essential.

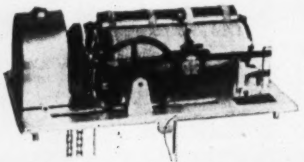
A highly developed Credit Department and an Investment Securities Department are only two of the useful features of the service which we render to customers.

The Coal and Iron National Bank
of the
CITY OF NEW YORK
Capital, Surplus and Profits, $3,000,000

Member N. Y. Clearing House Assn.
Member Federal Reserve System

1922
January 12th Issue
will be the
Road Show Issue

Send copy in today's mail



STEVENS
Water Level
Recorders and
Indicators

for water power plants, tides, irrigation, city water supply, sewers and drains.

Let Stevens Recorders Plot Your Hydrographs

Direct Acting, Long Distance, Duplex and Differential Recorders and Indicators, Transits and Levels.

Bulletins on request
Hydrographic and Surveying Instruments

Leupold, Voelpel & Co., 109 E. 70th St., N., Portland, Ore.

PITTSBURGH
METER COMPANY

Water Meters
for all Domestic
and Industrial
Services

East Pittsburgh, Pa.
New York
Chicago - Kansas City
Los Angeles - Seattle
Columbia, S.C.

AMBURSEN DAMS
Solve Difficult Foundation Problems
Highest Built, 156 feet.
Lowest Built, 6 feet.
Longest Built, 8,000 feet.
Shortest Built, 25 feet.
Send for Cost Data, Literature, Photos.
Ambursen Construction Co.,
Incorporated
New York Atlanta Kansas City

KENNEDY

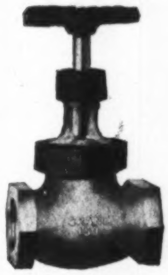
Water Gates, Fire Hydrants, Gate Valves
have demonstrated their efficiency, reliability and low maintenance cost in installations throughout the country. 500 different sizes and types. Send for Catalog.
The Kennedy Valve Mfg. Co., Elmira, N. Y.
New York Boston Chicago San Francisco 211

CHLORIDE OF LIME

For Purifying Water

Pennsylvania Salt Mfg. Company, Philadelphia, Pa., U. S. A.

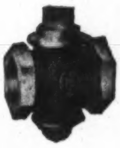
CRANE CO.


No. 7 Brass
Globe Valve

No. 461 Iron
Gate Valve

We are Manufacturers of about 20,000 articles, including

Valves, Pipe Fittings and Steam Specialties


Brass Cock

Malleable Iron
Elbow

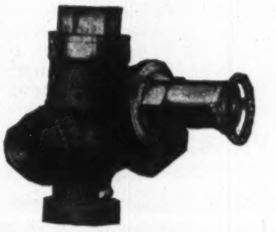
made of brass, iron, ferrosteel, cast steel and forged steel, in all sizes, for all pressures, and all purposes, and are distributors through the trade, of pipe, heating and plumbing materials.

No. 437 Brass
Gate Valve

No. 09 Oil
Separator

Malleable Iron
Return Bend

Reducing
Flanged Tee


No. 962
Pressure Regulator

No. 20 Horizontal
Brass Check Valve

Union

Non-Return
Steam Trap

SALES OFFICES, WAREHOUSES AND SHOWROOMS:

BOSTON
SPRINGFIELD
HARTFORD
BRIDGEPORT
ROCHESTER
NEW YORK
HARLEM
ALBANY
BROOKLYN
PHILADELPHIA
READING

ATLANTIC CITY
NEWARK
CAMDEN
BALTIMORE
WASHINGTON
SYRACUSE
BUFFALO
SAVANNAH
ATLANTA
KNOXVILLE
BIRMINGHAM

MEMPHIS
LITTLE ROCK
MUSKOGEE
TULSA
OKLAHOMA CITY
WICHITA
ST. LOUIS
KANSAS CITY
TERRE HAUTE
CINCINNATI

FOUNDED BY R. T. CRANE, 1855
CRANE CO.
836 S. MICHIGAN AVE.
CHICAGO

WORKS: CHICAGO AND BRIDGEPORT

INDIANAPOLIS
DETROIT
CHICAGO
ROCKFORD
OSHKOSH
GRAND RAPIDS
DAVENPORT
DES MOINES
OMAHA
SIOUX CITY
MANKATO

ST. PAUL
MINNEAPOLIS
WINONA
DULUTH
FARGO
WATERTOWN
ABERDEEN
GREAT FALLS
BILLINGS
SPOKANE

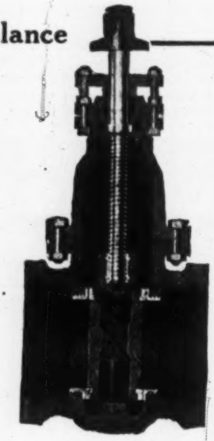
SEATTLE
TACOMA
PORTLAND
POCATELLO
SALT LAKE CITY
OGDEN
RENO
SACRAMENTO
OAKLAND
SAN FRANCISCO
LOS ANGELES

CRANE
LIMITED
MONTREAL, TORONTO, VANCOUVER, WINNIPEG,
CALGARY, REGINA, HALIFAX, OTTAWA.

CRANE-BENNETT, LTD.
LONDON, ENG.

the Story at a Glance

Ludlow Double Gate Valves



1. Simple in construction — few parts.
2. No locking or wedging of gates till directly opposite port or valve opening.
3. No grinding or dragging faces of gates on seats.
4. No binding of stem in wedge.
5. No stripping thread from stems.
6. Less wear of faces and gates.
7. Work equally well with pressure on either side of gate.

¶ Just ask the next Valve Salesman: Do the gates grind and drag shut—or do they wedge shut, tight, like the

Ludlow?

He'll have to be a mighty good salesman to answer satisfactorily

Send for the 1921 Catalog

The Ludlow Valve Mfg. Co.

Troy TRADE LUDLOW MARK **New York**

BRANCHES: New York, 62 Gold Street; Boston, 112 Water Street; Philadelphia, Harrison Building; Pittsburgh, First National Bank Building; Chicago, 633-635 The Rookery; Kansas City Office, R. A. Long Building. Southern Representative: W. F. Wilcox, American Trust Bldg., Birmingham, Ala.

"WATCH DOG"

WATER METERS

Accurate
Durable
Efficient

GAMON METER COMPANY
Main Office and Works:
NEWARK, NEW JERSEY

SIMPLEX Venturi Tube METERS

For checking up reciprocating pump performance and determining slippage due to imperfection or wear in valves; for measuring delivery of centrifugal pumps and figuring pumping station efficiency; for distributing proportionately the cost of water supplied to several districts; for checking up the performance of filter beds; for detecting waste; for recording daily amounts of sewage handled, and planning future extensions, etc., etc.

SIMPLEX VALVE & METER CO.
5722 Race St., Philadelphia, Pa.

POWELL VALVES

THE WHITE STAR VALVE

The Wm. Powell Co., Cincinnati, O.

Tycos **temperature instruments**

Indicating
Recording
Controlling

Taylor Instrument Companies
ROCHESTER, N. Y.
There is a *Tycos* or *Taylor* Temperature Instrument for Every Purpose

R1

MICHIGAN

PIPE

Municipal Engineers: the moderate cost of "Michigan Pipe" permits lowered estimates, or greater extensions of water main systems. Michigan Pipe can be shipped immediately from stocks on hand.

The permanency and excellent water service of "Michigan Pipe" lines are attested by a wealth of installation data covering more than 40 years of water-works service. Ask for the Michigan Pipe data book.

The Michigan Pipe Company, Dept. 17, Bay City, Michigan

New York City, N. Y.	17 E. 42nd St.
Oklahoma City, Okla.	17 N. Dewey St.
Chicago, Ill.	15 E. Van Buren St.
Boston, Mass.	93 Broad St.
Cleveland, Ohio	919 Ulmer Bldg.
Chattanooga, Tenn.	702 James Building
Montreal, Quebec, Canada	204 St. James St.
Philadelphia, Pa.	318 Widener Bldg.

AMERICAN
WOOD PIPE

Wire wound and continuous stave wood pipe for—

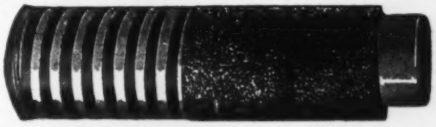
Irrigation
Water Works
Railroads
Mines, Etc.

Water pipe—made of clear Washington Yellow Fir. Steam pipe casing—made of Washington Cedar, asbestos or tin lined for insulating underground steam pipes.

Write for Catalog.

AMERICAN WOOD PIPE CO., TACOMA, WASH

Eastern Office: 30 Church St., New York City



Wyckoff Wood Pipe

Carries 14 to 20% more water than iron or steel and lasts longer.

Frost and corrosion proof. Send for our Catalog for full details.

A. Wyckoff & Son Company, Elmira, N. Y.

H. H. White, 1503 Fourth Natl. Bank Bldg., Atlanta, Ga.; Johnson-Peters Co., Pittsburgh Terminal Warehouse, Pittsburgh, Pa.; Valley Supply Co., Coal Exchange Bldg., Scranton, Pa.

"STANDARD" WOOD PIPE

Meets Many Requirements.
Durability and Economy.

Engineers know its real Value. Will furnish Pipe to suit Conditions. Write for our New Catalogue, where it gives you full information.

Standard Wood Pipe Company
Williamsport, Pa.

PACIFIC REDWOOD AND DOUGLAS FIR PIPE

Made in all sizes from 2 inch to 14 feet in diameter

Write for Catalogue

PACIFIC TANK & PIPE CO.
THE STANDARD SINCE '88

8 Rector St., New York
306 Market St., San Francisco
169 Washington St., Chicago

SATISFACTORY RESULTS
RAPID INSTALLATION
ECONOMICAL OUTLAY

TAYLOR'S SPIRAL RIVETED PIPE

For Water Supply Lines for

Mines, Mills, Hydraulic Operations, Hydro-Electric Plants, Dredging, etc.

Furnished Asphalted or Galvanized from 3 to 42 inches diameter and fitted with forged steel connections.

Hydraulic Giants, Flexible Joints, Valves and Fittings for complete installations.

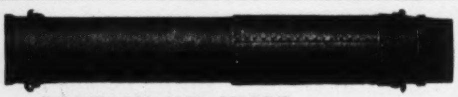
Ask for Catalogue 5 K.

AMERICAN
SPIRAL PIPE WORKS
CHICAGO

GLAMORGAN PIPE & FOUNDRY CO.
LYNCHBURG, VA.
GENERAL FOUNDERS AND MACHINISTS
Manufacturers of
Cast Iron Pipe
For Water and Gas, Flange Pipe and Fittings
Western Office: 543 The Rookery, Chicago

ROOT
Spiral Riveted Pipe—
Pipe Specialists for 48 years.
Abendroth & Root Mfg. Co.
Works: Newburgh, N. Y.
N. Y. Office: 233 Broadway

Dredge Pipe



PONTOON AND SHORE
Elbows, Branches, Ball Joints, Valves, Steel Pontoons
MACHOLD & RIDDELL, Stephen Girard Building PHILADELPHIA, PA.

U. S. PRODUCTS
CAST IRON PIPE USICAST CASTINGS
United States Cast Iron Pipe & Fdy. Co
General Offices: Burlington, N. J.

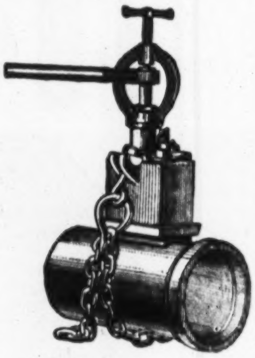
Easily Carried By One Man

This light, durable machine will be sent on approval for 30 days' trial. If not as represented, send it back.

Corporation Tapping Machine

Write for latest bulletins of this and other waterworks appliances.

The A. P. Smith Mfg. Co.
East Orange, N. J.



Every joint tight

UNIVERSAL CAST IRON PIPE

no packing no calking no bell holes

—water supply—fire protection—sewage disposal—subaqueous lines—oil distillation—refrigeration—central station heating—low pressure steam. Have you complete data?

THE CENTRAL FOUNDRY COMPANY
90 WEST STREET, NEW YORK
Chicago Atlanta Dallas San Francisco
417

1803 R. D. Wood & Co. 1921
400 Chestnut St., Philadelphia

Cast Iron Pipe
Special Castings
For water, Gas and High Service

Mathews Fire Hydrants
Gate, Foot and Check Valves
Loam Castings
Hydraulic Tools
Gas Producers

Warren Foundry & Machine Company
Manufacturers of
CAST IRON PIPE
SPECIAL CASTINGS
Bell and Spigot—Flanged—Flexible Joint—Culvert—Tubes, Milled and Plain Ends — Cylinders — Manhole Heads and Covers—High-Pressure Fire Service Pipe—All Sizes.
Works: Phillipsburg, N. J.
Sales Offices: Bowling Green Bldg., New York; 201 Devonshire Street, Boston, Mass.

TRADE "LEADITE" MARK
Registered U. S. Patent Office
FOR JOINTING CAST IRON WATER MAINS
NO CAULKING
Saves 50% to 75%
Leadite Joints Improve with Age
THE LEADITE COMPANY, 1232 Land Title Bldg., Phila., Pa.

CAST IRON PIPE
— AND FITTINGS —
American Cast Iron Pipe Company
Birmingham, Ala.
SALES OFFICES IN PRINCIPAL CITIES

EAST JERSEY

Transporting "Lock-Bar" Pipe by Motor Truck

LOCK-BAR Pipe is made in 30-ft. lengths—most convenient for shipping and handling. It bears transportation well—especially the tough, tenacious protective coating.

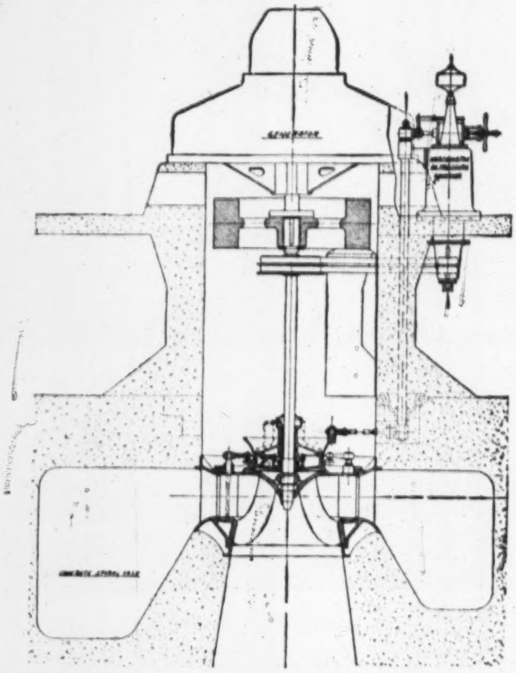
Upon request accompanied by business card we will be glad to send to Executives our new 200 page "Handbook of Pipe."

EAST JERSEY PIPE CO., 7 Dey Street, New York City
Works: Paterson, N. J.

LOCK-BAR

Before Closing

STRONG AS THE PLATE ITSELF



Another of the seven Standard Worthington settings which cover practically every hydraulic power situation. This setting is best for heads from 25 to 50 feet.

Standardized Means Better Design

The individual parts of Worthington Hydraulic Turbines are standardized throughout, so that each element receives more careful study and more complete testing than is possible in special designs for each occasion.

Building turbines out of standard parts not only eliminates many chances for error in the design of minor details, but also cuts the cost of repairs.

WORTHINGTON

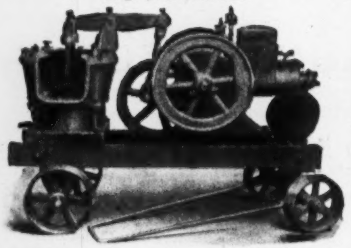
WORTHINGTON PUMP AND MACHINERY CORPORATION
Executive Offices: 115 Broadway, New York City
Branch Offices in 24 Large Cities

W 43.4

"DOMESTIC"

Reg. U. S. Pat. Off.

Use Domestic Units and Insure Profits



Power Pump and Hoist Outfits

Send for Bulletin "B"

Domestic Engine & Pump Co., Shippensburg, Pa.

FAIRBANKS-MORSE

MANUFACTURERS CHICAGO

Oil Engines—Pumps—Electric Motors and Generators—Fairbanks Scales—Railway Appliances—Light Plants—Water Systems.

EDSON

"Reg. U. S. Pat. Off."

The World's Standard for

DIAPHRAGM PUMPS

Have your next requisition insist on our new DIAPHRAGM with the BEAD. Most efficient and durable Diaphragm made. None genuine without white diamond bearing our guarantee and name in full.

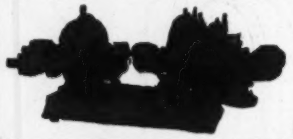
EDSON MANUFACTURING CORP'N
Established 1859 **373 Broadway, Boston, Mass.**

De Laval

Steam Turbine Co., Trenton, N. J.

Builders of TURBINE MACHINERY, including Steam Turbines of all capacities for high or low-pressure steam and for direct connection or for belt or rope drive. Complete Turbo-Generator Sets. Centrifugal Pumps for all Heads and Capacities. Centrifugal Blowers and air Compressors. Double Helical Speed Reducing Gears. *Write for special bulletins on apparatus in which you are interested.*

LEA-COURTENAY PUMPS



Centrifugal pumping machinery for every kind of pumping service.

Lea-Courtenay Co
3 Main Street Newark, N. J.

WOODWARD WATERWHEEL GOVERNORS

Built in All Types and Sizes from the Smallest to the Largest

Woodward Governor Company
203 Mill Street Rockford, Illinois

Centrifugal **EARLE** *Pumps*
Cut Gears Lea Simplex Cold Saws
Special and Bridge Machinery
The Earle Gear and Machine Co.
4707 Stenton Ave Phila. Pa.

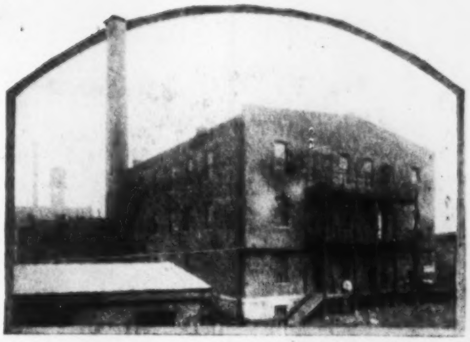
PUMPS

TRIPLEX · CENTRIFUGAL · ROTARY · DEEP WELL · HAND

Pumping Oil and Water Alternately With a Goulds Centrifugal

One Goulds Centrifugal Pump in the S. Obermayer Co. plant, 18th and Rockwell Streets, Chicago, pumps oil and water alternately. Through the arrangement of the feed pipes, the loss of oil is reduced to the least possible amount. This Goulds Pump like all Goulds Pump installations gives satisfactory service—because every *Goulds Pump is guaranteed to perform satisfactorily the specific work for which it is sold.*

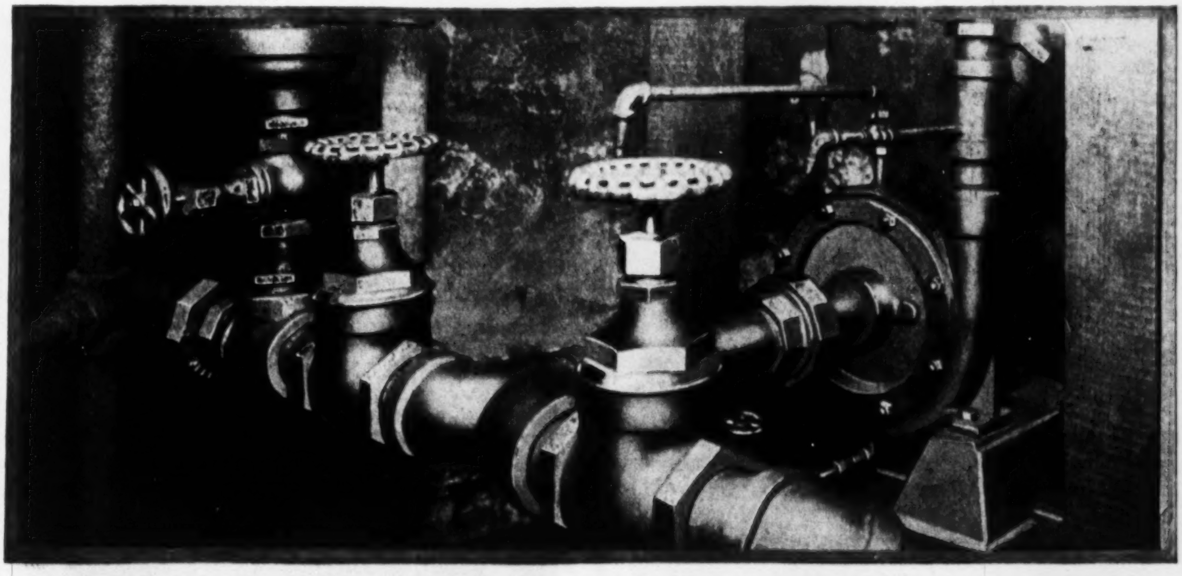
Our Engineering service department will be pleased to be of assistance to you on any pumping problem. Every engineer should have a set of our Bulletins—have you one?



Plant of S. Obermayer Co., Chicago, Ill.

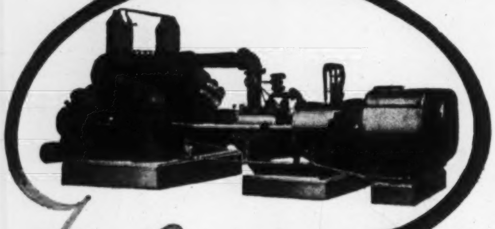
The Goulds Manufacturing Co., Main Offices and Works: Seneca Falls, N. Y.

New York, 16 Murray St., and 19 Park Place **Boston,** 58 Pearl St. **Pittsburgh,** 636 Henry W. Oliver Bldg. **Atlanta,** Citizens & Southern Bank Bldg.
Chicago, 12-14 S. Clinton St. **Philadelphia,** 111 North 3rd St. **Houston,** 1001 Carter Bldg. **Detroit,** 804 Dime Bank Bldg.



GOULDS

The John H. McGowan Co.
Manufacturers



The Cost Question

Duplex Pumps
Steam Power

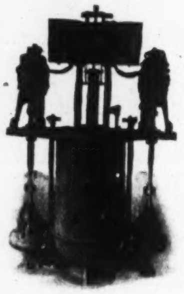
What Is It—

The cost—of installation—of operation—of maintenance—of class of operator necessary?

Is it *not a combination* of all?

CINCINNATI, OHIO, U. S. A.

Automatic Sewage and Drainage Pumps
also
Hot Water Circulation
and
Condensation Return Pumps



Sewage Ejector
Duplex Centrifugal

Our apparatus in the most important buildings and power stations in U. S.

Municipal Sewage Pumping Plants
designed and erected

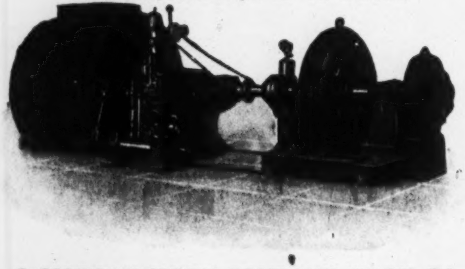
The Shone Pneumatic Sewage Ejector

YEOMANS BROTHERS CO.
1431 Dayton St., Chicago
Representatives in all large cities

TONS OF COAL CAN BE SAVED

if water-power users would replace their antiquated and inefficient water wheels with SMITH TURBINES.

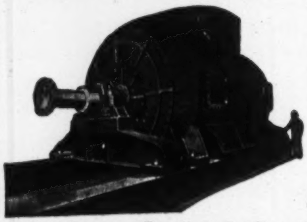
If interested, write Dept. "E" for Bulletin.



S. MORGAN SMITH COMPANY, YORK, PA.

Branch Offices: 176 Federal St. BOSTON | CHICAGO 76 Monroe St. | 405 Power Bldg MONTREAL

Leffel Turbine Water Wheels



High Speed
High Efficiencies
High Horsepower
Vertical
and
Horizontal Designs

The James Leffel & Co., Springfield, Ohio, U. S. A.

BRANCH OFFICES:

NEW YORK, N. Y. .... 39 Cortlandt St.
BOSTON, Mass. .... 161 Devonshire St.
ATLANTA, Ga. .... Fourth Nat'l Bank Bldg.
MINNEAPOLIS, Minn. .... Plymouth Bldg.
William Hamilton Co., Ltd.: Petersborough, Ont., Canada.

A. D. COOK, LAWRENCEBURG, INDIANA

Manufacturer of

Steam and Power Deep Well Pumps, Single and Double Acting, Cook's Patent Brass Tube Well Strainers, Deep Well Cylinders, Sucker Rods and Well Tools. Deep Well Pumping Systems installed complete.

Write for Catalog No. 11-6.

Cook Deep Well Products have always been manufactured by A. D. Cook. The Cook Well Company of St. Louis, Mo., a selling organization, has retired from active business and has transferred its good will to A. D. Cook. Customers of the Cook Well Company will receive direct service by writing to A. D. Cook, Lawrenceburg, Ind.

MANISTEE RTURB
CENTRIFUGAL PUMPS
ROTARY JET CONDENSERS
Manistee Iron Works Co. Manistee, Mich

PELTON
HYDRAULIC TURBINES,
GOVERNORS
AND CENTRIFUGAL PUMPS
THE PELTON WATER WHEEL CO.
92 West St., New York 1992 Harrison St., San Francisco

MORRIS CENTRIFUGAL PUMPS
HYDRAULIC DREDGES
PUMPING ENGINES
SINCE 1864

MORRIS MACHINE WORKS
Baldwinsville, N. Y.
Agents in Principal Cities.

STEEL TANKS
CHICAGO BRIDGE & IRON WORKS

Elevated Steel Tanks, Storage Tanks, Steel Stacks and Heavy Plate Work

Catalog No. 10 Gladly Sent on Request

SALES OFFICES:
Chicago, Ill. . . . . 2101 Old Colony Bldg.
New York, N. Y. . . . . . . 3111 Hudson Terminal Bldg.
Atlanta, Ga. 1025 Forsyth Bldg.
Charlotte, N. C. . . . . 501 Realty Bldg.
Dallas, Texas . . . . 1602 Praetorian Bldg.
San Francisco, Cal. . . . . 1020 Rialto Bldg.
Los Angeles, Cal. . . . . Wright & Callendar Bldg.
Seattle, Wash. . . . . L. C. Smith Bldg.
Montreal, Que. . . . . 1114 Bank of Toronto Bldg.

Shops at Chicago, Ill., Greenville, Pa., and Bridgeburg, Ont.

Elevated Water Tanks Standpipes, Stacks Pressure Tanks, Etc.

All kinds of plate steel construction

TIPPET & WOOD
PHILLIPSBURG, N. J.
New York Office: 135 William Street

Better Welding

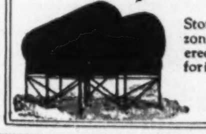
Welding efficiency means the highest production of sound welds with lowest gas consumption.

Look up your costs of acetylene and oxygen gases for the past year. Then let us tell you how much the Milburn "Cut-Weld" Torch will save you.

Two of America's greatest railroad systems have just adopted the Milburn "Cut-Weld" Torch after years of competitive tests. Send for details, in Catalog 21.

The Alexander Milburn Company
1420-1428 West Baltimore St., Baltimore, Md.
New York, Grand Central Palace; Philadelphia, Bourse Building; Pittsburgh, 532 Union Arcade; Chicago, 15 E. Van Buren St.; San Francisco, 268 Market St.

Steel Tanks for All Purposes
Also Water Softening Equipment



Storage Tanks, both vertical and horizontal, riveted or welded. Field and shop erected Storage Tanks; Elevated Tanks for industrial, municipal and railroad use.

GRAVER *Corporation*
East Chicago, Indiana

TANKS

All kinds of plate construction for power plants, oil, gas, chemical and other industrial purposes. Large capacity; quick service; dependable work.

NEW YORK CENTRAL IRON WORKS CO. INC.
MIDDLEBURG DRIVE - HAGERSTOWN, MARYLAND
50 CHURCH ST, NEW YORK - 1023 WIDENER BLDG, PHILADELPHIA

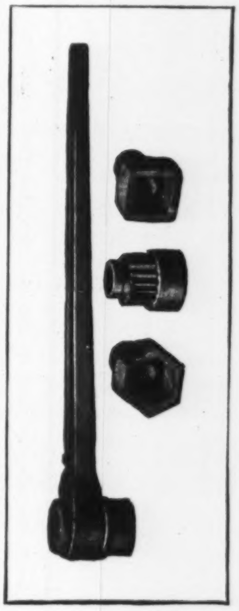
The labor situation calls for

LOWELL
Reversible Ratchet Wrenches

As the wage per hour mounts, the work done per hour has to mount — or should mount—in proportion. If it is a job that employs wrenches, the men will work at their highest efficiency if equipped with Lowell Reversible Ratchet Wrenches to fit the exact situation. An outfit of Lowells is a good outfit—pays well—speeds up work and reduces delays and accidents. Write for Catalog R.

Lowell Wrench Co.
50 Commercial St.
Worcester, Mass.

LOWELL



P.I.W. SERVICE IS WORLDWIDE

STEEL PLATE CONSTRUCTION

P.I.W. Steel Plate Products are used in the Petroleum, Gas, Mining, Railway, Iron and Steel, Water Works, Engineering and Allied Industries.

The Petroleum Iron Works Company
Sharon, Pa.
New York St. Louis Houston San Francisco

DES MOINES TANKS TRADE MARK

The Reason Why

A wealth of experience and excellent shop facilities enable DES MOINES to render a service that is more than satisfactory, at a price and with such promptness that is more than gratifying.
Do you specify DES MOINES PRODUCTS by **name?** This is the only way to be **sure** of quality. *Write for Catalogue No. 70 today.*

Pittsburgh-Des Moines Steel Co.
870 Curry Bldg., Pittsburgh, Pa.

PLANTS:
Pittsburgh, Pa.
Des Moines, Ia.
Chatham, Ont.

MEMPHIS
COMPLETE INDUSTRIAL BUILDINGS

Tanks & Towers—Structural Steel Work—Plate Work
Memphis Steel Construction Co. of Pa.
Magee Building PITTSBURGH, PA.

AMERICAN CHIMNEY CORPORATION
OF NEW YORK

Designers and Builders

Radial Brick Chimneys

MAY WE SEND YOU OUR CATALOGUE?

Main Office:
147 Fourth Avenue, New York

BRANCHES:
Chicago: 1101 Security Bldg.
Cleveland: 919 American Trust Bldg.
Philadelphia: Stephen Girard Bldg.
Boston, 141 Milk Street

CUSTODIS CHIMNEYS

Alphons Custodis Chimney Construction Co.
95 Nassau Street, New York

Perforated Radial Brick Chimneys

BUILDERS AND DESIGNERS OF THE TALLEST AND LARGEST CHIMNEYS IN THE WORLD

Anaconda Copper Mining Company, Anaconda, Mont
Height 585 ft. above grade. Top diam., 60 ft.

We design and build chimneys of all sizes and for all purposes for boilers, furnaces, chemical plants, destructors, etc.

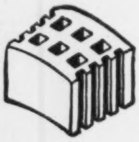
Experts in repairing chimneys.

Lightning Rods installed and repaired.

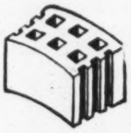
Specifications, plans, designs, and data furnished free upon request

ATLANTA
BOSTON
CHICAGO
TORONTO
CLEVELAND
DETROIT
PHILADELPHIA
PITTSBURGH
RICHMOND
SEATTLE
MONTREAL

Send for free descriptive literature, Set No. 313.



KELLOGG CHIMNEYS



have proved their ability to stand up under the hardest service conditions. Not one has ever failed. The evenly hard burned radial brick with corrugated sides insure the greatest possible strength of the mortar joints. Leading power plants and smelters are equipped with Kellogg Chimneys.

Bulletin No. 60 is yours on request. Write.

THE M. W. KELLOGG COMPANY
90 West Street, New York

H. R. HEINICKE, Inc.

Designers and Builders

RADIAL BRICK CHIMNEYS

New York, N. Y., 147 Fourth Avenue
Indianapolis, Ind., 540 N. Meridian St.

SALES OFFICES:
Pittsburgh
Cleveland
Chicago
Milwaukee
Boston
St. Louis
Detroit
Louisville
Buffalo
Philadelphia
Charlotte, N. C.
Los Angeles
Cincinnati
Kansas City
Memphis
New Orleans
Montreal

Heinicke Chimneys have stood the test for twenty years. They are economical in first cost and fuel consumption. Our Engineering Department is at your service. Preliminary estimates and designs furnished. May we mail you our 1921 circular?

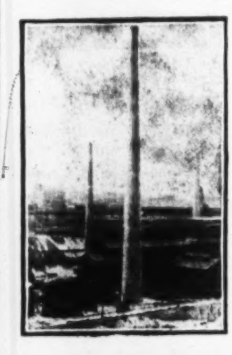
THE HEINE CHIMNEY CO.
ENGINEERS and BUILDERS

RADIAL BRICK and CONCRETE CHIMNEYS

Chicago, Ill.
123 W. Madison St.

New York, N. Y.
30 Church St.

Branch offices in all principal cities



SUMMERHAYS RADIAL BRICK CHIMNEYS
***AND* BOILER MASONRY**

Put our 60 years of highly specialized training and experience to work on your chimney problems

Send for data-photographs and names of customers

WM. SUMMERHAYS & SONS
ROCHESTER, N.Y.

WEBER REINFORCED CONCRETE CHIMNEYS

More Than Fifteen Hundred in Use

Builders of
The Highest Masonry Structure in the World at Tokio, Japan
Height 672 ft.
Inside top diameter 3 ft. 6 in.

Catalog sent free upon request.
Contracts executed in all parts of the world.

The Weber Chimney Company
1453 McCormick Building, Chicago, U. S. A.
Sales offices throughout the world

GENERAL CONCRETE CONSTRUCTION CO.

CONCRETE CHIMNEYS

CHICAGO
431 S. DEARBORN ST.

NEW YORK
30 CHURCH ST.

WIEDERHOLDT CHIMNEYS
for Special Service

Not equalled by any other for boiler or special service
HIGH TEMPERATURE, ACID GASES OR ANY OTHER UNUSUAL CONDITIONS

Wiederholdt Construction Co.
621 Bank of Commerce Bldg. **ST. LOUIS, MO.**

THE BABCOCK & WILCOX COMPANY
85 LIBERTY STREET, NEW YORK

Builders since 1868 of Water Tube Boilers of continuing reliability

BRANCH OFFICES

BOSTON, 49 Federal Street
PHILADELPHIA, North American Building
PITTSBURGH, Farmers Deposit Bank Building
CLEVELAND, Guardian Building
CHICAGO, Marquette Building
CINCINNATI, Traction Building
ATLANTA, Candler Building
TUCSON, ARIZ., 21 So. Stone Avenue
FORT WORTH, TEX., Flatiron Building
HONOLULU, H. T., Castle & Cooke Building

THE BABCOCK & WILCOX COMPANY
STEAM

WORKS
Bayonne, N. J.
Barberton, Ohio

Makers of Steam Superheaters since 1898 and of Chain Grate Stokers since 1893

BRANCH OFFICES

DETROIT, Ford Building
NEW ORLEANS, 521-5 Baronne Street
HOUSTON, TEXAS, Southern Pacific Building
DENVER, 435 Seventeenth Street
SALT LAKE CITY, 705-6 Kearns Building
SAN FRANCISCO, Sheldon Building
LOS ANGELES, 404-6 Central Building
SEATTLE, L. C. Smith Building
HAVANA, CUBA, Calle de Aguiar 104
SAN JUAN, PORTO RICO, Royal Bank Building

POLK SYSTEM

Conirib

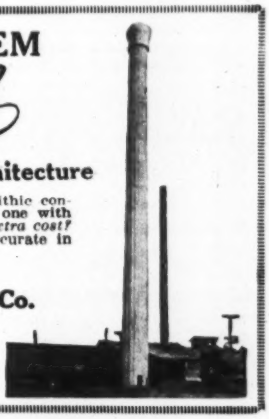
The Chimney with Architecture

Why pay for a plain, dull monolithic concrete chimney when you can get one with *real architectural value without extra cost?* A "Conirib" Chimney is more accurate in every line and beautifully ribbed.

Write for details

Polk Genung Polk Co.

Sales Office:
Indianapolis, Ind.
Factory Office:
Fort Branch, Ind.

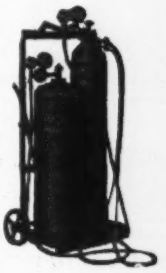


RUST CHIMNEYS
RADIAL BRICK AND REINFORCED CONCRETE
REFRACTORY BRICKWORK
The RUST ENGINEERING CO.
ENGINEERS AND CONTRACTORS
PITTSBURGH WASHINGTON BIRMINGHAM

Watch WEBSTER

See larger advertisements each month, which will tell you what you want to know about Webster Conveying, Elevating, Transmission Machinery.

The Webster Mfg. Co.
4500 Cortlandt St.,
Chicago., Ill.



AIRCO

PRODUCTS

Oxygen
Acetylene
Welding and Cutting Apparatus and Supplies
Acetylene Generators
Carbide
Nitrogen
Argon

"Airco Oxygen and Acetylene Service is Good Service"

Airco District Offices and Distributing Stations

An Airco Distributing Station is located in each of the following cities. District Offices are located in cities indicated by a star (*).

Albany, N. Y.
*Atlanta, Ga.
558 Marietta St.
*Boston, Mass.
122 Mt. Vernon St.
Dorchester
Baltimore, Md.
Bethlehem, Pa.
Bridgeport, Conn.
Brooklyn, N. Y.
Bronx, N. Y.
*Buffalo, N. Y.
730 Grant St.
Canton, O.
*Chicago, Ill.
2236 So. Lumber St.
*Cleveland, O.
1210 W. 69th St.
Cincinnati, O.
Coatesville, Pa.
Columbus, O.
Defiance, O.
Des Moines, Ia.
*Detroit, Mich.
7991 Hartwick St.
Duluth, Minn.
East Chicago, Ind.
East St. Louis, Ill.
*Emeryville, Calif.
Park Ave. and Halleck St.
Erie, Pa.
Fort Wayne, Ind.
Gloucester, N. J.
Grand Rapids, Mich.
Hartford, Conn.
Indianapolis, Ind.
*Jersey City, N. J.
181 Pacific Ave.
Johnstown, Pa.
Joplin, Mo.
Kansas City, Mo.
Lebanon, Pa.
Louisville, Ky.
Madison, Ill.
Milwaukee, Wis.
*Minneapolis, Minn.
327 25th St., S. E.
New Haven, Conn.
New York, N. Y.
(Metropolitan Dist.)
*Jersey City, N. J.
181 Pacific Ave.
Brooklyn, N. Y.
Bronx, N. Y.
Norfolk, Va.
*Oklahoma City, Okla., P. O. Box 1338
Paterson, N. J.
Peoria, Ill.
*Philadelphia, Pa.
Germantown and Allegheny Aves.
*Pittsburgh, Pa.
2515 Liberty Ave.
Portland, Ore.
*Richmond, Va.
P. O. Box 1192
San Francisco, Cal.
*Seattle, Wash.
3623 E. Marginal Way
Sharon, Pa.
Springfield, O.
*St. Louis, Mo.
115 Plum St.
Tacoma, Wash.
Terre Haute, Ind.
Toledo, O.
Tulsa, Okla.
Warren, O.
Youngstown, O.

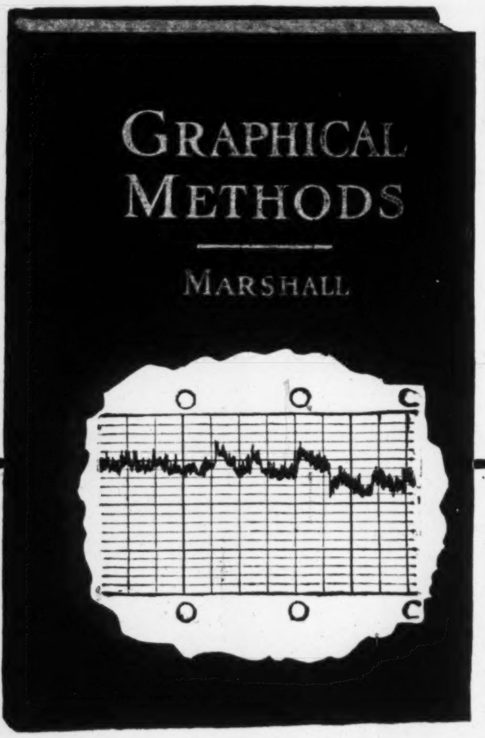
AIR REDUCTION SALES CO.

Mfrs. of Airco Oxygen, Airco Acetylene, Airco Welding and Cutting Apparatus and other Airco Products.

Home Office:
342 Madison Ave., New York, N. Y.

AMERICAN GAS FURNACE CO.
Main Office and Works, ELIZABETH, N.J.
EVERY TYPE OF GAS BLAST FURNACE, HEATING MACHINE, BURNER, INCLUDING BLOWERS, ETC., FOR INDUSTRIAL USES

FOSTER SUPERHEATERS
A necessity for turbine protection, engine cylinder economy, and utilization of superheat for all its benefits
POWER SPECIALTY COMPANY Boston Chicago Pittsburgh Kansas City San Francisco Dallas Philadelphia London, Eng. 111 Broadway, New York



The Construction and Use of Graphs--

E. Leonard Stapleton, the widely known specialist on graphical charts and graphical control, says: "This book is the best presentation of the subject yet published. I like it because—

The order of the subjects is logical;
The definitions are good;
The catalogue of chart papers is very convenient;
The illustrations and general make-up of the book are excellent;
The bibliography appears most complete."

Just Out

GRAPHICAL METHODS

By William C. Marshall

Consulting Engineer; formerly Professor of Machine Design, Sheffield Scientific School (Yale).

253 pages, 6 x 9, 220 illustrations, $3.00.

The book shows:
What a graph is—
The various kinds of graphs—
How to make diagrams—
The numerous applications of graphs—
How to use graphs in the determination of laws embodying the results of experiment—
How to use diagrams for illustrating the route of an order from source to destination—
How to use diagrams for illustrating the path laid out for keeping track of an article of manufacture as it passes through the shop—
How to use diagrams as an outline of the processes of manufacture—
How to use diagrams as flow sheet of all material obtained as a by-product during the reduction of raw material to a final output—
How to use diagrams in making calculations—
What a nomogram is—
How to use nomograms—
What the several recording instruments for mechanical graphical records are and how they are used.

Free Examination Coupon

McGraw-Hill Book Co., Inc., 370 Seventh Ave., New York.

You may send me on 10 days' approval: **Marshall's Graphical Methods, $3.00 net, postpaid.** I agree to remit for the book or return it postpaid within 10 days of receipt.

....I am a member of the Am. Soc. C. E.

....I am a regular subscriber to Engineering News-Record.

Signed ....

Address ....

....

Official Position ....

Name of Company ....

(Books sent on approval to retail purchasers in the U. S. and Canada only.) N.R. 12-29-21

Norton Self-Lowering Jacks Are the Fastest Jacks Made

They lower the full load with absolute safety by pressing the button—you do not have to pump or crank them down as with other jacks.

25 to 100 tons capacity—Plain and with foot lift. Send for complete illustrated Catalog No. 30.

A. O. Norton, Incorporated
440 Brookline Ave., Boston, Mass.

STEELE & CONDICT, INC.
Manufacturing Engineers—Jersey City, N. J.
Most Modern Facilities for the
DESIGN, MANUFACTURE and ERECTION of
MACHINERY and EQUIPMENT
for all types of MOVABLE BRIDGES
Established 1863

BELMONT IRON WORKS · FOUNDED 1870 · BEL-IRON · INCORP. 1897 · PHILADELPHIA

BELMONT IRON WORKS
PHILADELPHIA NEW YORK EDDYSTONE
Engineers · Contractors · Exporters
STRUCTURAL STEEL AND STEEL LUMBER
Complete Industrial Buildings

Louisville Bridge & Iron Company
(Incorporated)
Louisville, Ky.

Bridges Buildings Structural Steel

Engineers, Fabricators, Erectors of Steel Railroad and Highway Bridges. Structural Metal Work of every description

Established 1868 *Incorporated 1886* *Reincorporated 1905*

PENN BRIDGE COMPANY
Beaver Falls, Pa.
Designers Manufacturers Erectors
Bridges, Buildings, Structural Steel of Every Description
Stock Steel for Prompt Shipment
Foundry and Machine Work
Shops: Beaver Falls and Claysville, Pa. Capacity 30,000 tons per annum

MILWAUKEE BRIDGE COMPANY
Engineers, Contractors, Manufacturers
STEEL FRAMED STRUCTURES
of all kinds MILWAUKEE, WIS.

ALLEN RIVETERS
"Whatever the Riveting, there's an ALLEN for the job"
Let us quote on your present needs
JOHN F. ALLEN CO.
372 Gerard Avenue (Bronx), New York

AMERICAN BRIDGE COMPANY

HUDSON TERMINAL—30 CHURCH STREET, NEW YORK

Manufacturers of Steel Structures of all classes particularly **BRIDGES AND BUILDINGS**

SALES OFFICES:

NEW YORK, N. Y..............30 Church St.
Philadelphia, Pa.............Widener Building
Boston, Mass..................120 Franklin St.
Baltimore, Md............Continental Building
PITTSBURGH, PA.............Frick Building
Buffalo, N. Y................Marine Nat. Bank
Cincinnati, Ohio..........Union Trust Building
Atlanta, Ga ....Candler Building
Cleveland, Ohio............Guardian Building
Detroit, Mich......Beecher Ave. & M. C. R. R.
CHICAGO, ILL............208 So. La Salle St.

St. Louis, Mo.......Liberty Cent. Trust Building
Denver, Colo.........First Nat. Bank Building
Salt Lake City, Utah....Walker Bank Building
Duluth, Minn ....Wolvin Building
Minneapolis, Minn.....7th Ave. & 2nd St., S. E.

Pacific Coast Representatives:

U. S. Steel Products Co., Pacific Coast Dept.
San Francisco, Cal..............Rialto Building
Portland, Ore..................Selling Building
Seattle, Wash.......4th Ave So., Cor. Conn. St.

Export Representative: United States Steel Products Co., 30 Church St., N. Y.

VIRGINIA BRIDGE & IRON CO.

Steel Buildings & Bridges

ROANOKE MEMPHIS ATLANTA NEW ORLEANS DALLAS

KING BRIDGE CO.

CLEVELAND, OHIO

BERLIN CONSTRUCTION CO.

STEEL BUILDINGS
BRIDGES
STRUCTURAL WORK

Offices and Works,
BERLIN - - CONN.
220 Broadway, New York
Springfield, Mass.

LACKAWANNA BRIDGE COMPANY

CONSULTING ENGINEERS. DESIGNERS
MANUFACTURERS OF STEEL STRUCTURES

GENERAL CONTRACTORS FOR FIREPROOF CONSTRUCTION

New York, Chicago, Buffalo, Milwaukee, Houghton, Mich.

WORDEN-ALLEN COMPANY

BRIDGE OPERATING MACHINERY

Designed and Manufactured for
All Types of Lift Bridges and Swing Draws

The Earle Gear and Machine Co.
PHILADELPHIA, PA.

FREDERICK SNARE CORP.

Formerly THE SNARE AND TRIEST CO.

CONTRACTING ENGINEERS

8 West 40th Street, New York

Harbor Works, Railroads, Bridges, Industrial Plants, Sugar Plants, Steel and Masonry Construction, Tanks, Pipe Lines, Water Works

Cable Address, Santee, New York.
Cable Address, Pawnee, Havana.
Western Union and Lieber Codes Used.
Havana Office, Zulueta 36 D.

Edward F. Terry, Chairman of the Board
Frederick Tench, President.
George O. Wagner, Vice Pres. & Treas.
Howard H. Sherwin, Vice Pres. & Gen. Manager.

The TERRY & TENCH CO.

INC.

Engineers and Contractors

GRAND CENTRAL TERMINAL, NEW YORK CITY

FORT PITT BRIDGE WORKS

OF PITTSBURGH, PA.

Bridges, Buildings, Ship Fabrication

General Office, Oliver Bldg., Pittsburgh, Pa. New York Office, 29 Broadway.
Chicago Office, Ashland Block.
Cleveland Office, Marshall Bldg.
Purchasing Dept. and Works, Canonsburg, Pa.

Shoemaker-Satterthwait Bridge Co.

Fabricated Steel for Bridges and Buildings

New York Main Office and Works Pottstown, Pa. **Philadelphia**

KENWOOD BRIDGE COMPANY

Roofs, Bridges
Columns and Girders
Works:
Grand Crossing, Ill.

Engineers, Designers, Fabricators, Erectors of
STRUCTURAL STEEL WORK
Prompt shipments of fabricated or plain sections from stock

Steel Mill Buildings
A Specialty
Offices
14th First National Bank Bldg.,
Chicago, Ill
Tel. Randolph 1488

MORAVA CONSTRUCTION CO.
ENGINEERS AND CONTRACTORS
Manufacturers of
STRUCTURAL STEEL
For All Purposes STEEL BUILDINGS, BRIDGES, Etc.
Capacity 25,000 tons per year
General Offices and Works: 85th Street and Stewart Ave.
City Office: Suite 419 People's Gas Bldg., 122 Michigan Boulevard.
Chicago, Ill.

KELLOGG
STRUCTURAL STEEL CO.
BUFFALO, N. Y.

The Strauss Bascule Bridge Company—Engineers Specialists in MOVABLE BRIDGES, Designers of STRAUSS TRUNNION BASCULE BRIDGES
and
STRAUSS DIRECT LIFT BRIDGES
225 North Michigan Avenue, Chicago

EASTERN
BRIDGE & STRUCTURAL Co.
WORCESTER, MASS.
BRIDGES AND BUILDINGS

RIVERSIDE BRIDGE CO.
STEEL STRUCTURES
MARTINS FERRY, O.

Snead Architectural Iron Works
LOUISVILLE, KY.
STRUCTURAL STEEL and ORNAMENTAL IRON
Large Stock of Standard and Bethlehem Shapes
Immediate Shipment of Fabricated or Plain Material

Works—Phoenixville, Pa.
The Phoenix Bridge Co.
—Bridges and Buildings—
Offices
Phila. New York Boston Rochester Washington

INDEPENDENT
BRIDGE CO.

WORKS:
NEVILLE ISLAND, PA.
and NORTH SIDE

OFFICE:
MAY BUILDING
PITTSBURGH, PA.

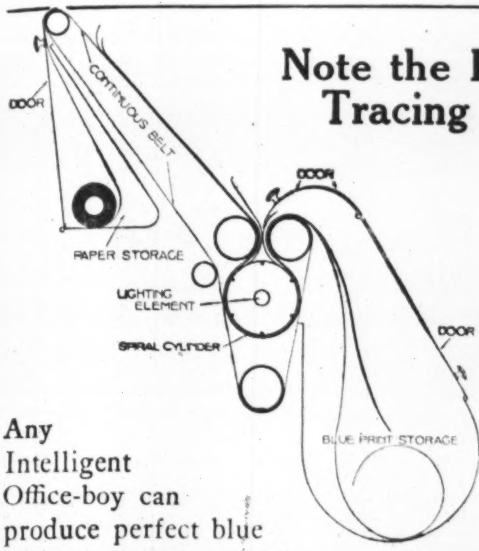
The Mount Vernon Bridge Co.
ENGINEERS AND MANUFACTURERS OF
Iron and Steel Mill Buildings and Structural Work
Railway and Highway Bridges, Roofs, Viaducts, etc.
MOUNT VERNON, OHIO

WISCONSIN BRIDGE & IRON CO.,
NORTH MILWAUKEE WISCONSIN
Chicago Detroit Kansas City El Paso

THE
Boston Bridge Works
INCORPORATED
47 Winter Street, Boston, Mass.
Bridges and Buildings

JANUARY 12TH
Good Road Show Issue
Send copy today

Note the Perfect Contact Between Tracing and Paper— and the other features



This cross-section of the Wickes Blue Printing Machine speaks for itself. Note the lighting element, in particular. The light is projected in a direct radial line through the tracing without intervening glass. In other words, we have eliminated the breakable glass cylinder and substituted an open grill work of bronze wires that cannot overheat. The light is closer to the printing paper than in any other type of machine. This means *cleaner, clearer* prints. Fast, clean work is a Wickes characteristic. There are no complications—no ventilating fans, no series of belts—no high powered motor. Space forbids a listing of all the Wickes advantages.

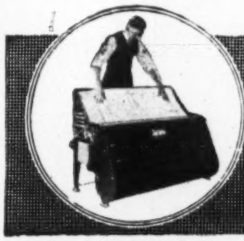
Write us and we will convince you that you can save money, eliminate trouble and get better prints the Wickes way.

Any
Intelligent
Office-boy can
produce perfect blue
prints in large quantities

Built by

1856 **WICKES BROTHERS** 1921

200 Water Street, Saginaw, Mich., U. S. A.
501 Fifth Ave., New York, N. Y.
736 White-Henry Bldg., Seattle, Wash.



WICKES
BLUE PRINT SYSTEM
SAGINAW-MICHIGAN

ONE ROLL
CONTINUOUS
Duplex
DRAWING
PAPER
No 50
36 lb POUNDS
KEUFFEL & ESSER CO.

The Choice of the Experienced Draftsman

is a paper that is strong, of uniform texture; that takes pencil and ink well, and stands a maximum amount of erasures. For over half a century

K&E "Duplex" Detail Drawing Paper No. 50

has satisfactorily met the draftsman's want for such a paper.

Made of selected rag, it has unusual durability and strength. Its cream or buff color makes it agreeable to the eye and less subject to soiling. And, last not least, its splendid erasing qualities save many a disagreeable situation where otherwise the drawing would be spoiled and have to be done over again. It is, therefore, a dependable and economic paper to work with.

In price, this paper is only slightly higher than inferior semi-wood pulp paper— and remember the K & E quality guarantee stands back of it.

Furnished in Sheets and Rolls up to 62 inches wide.

Not genuine unless bearing our label and trademark.

Send for sample

KEUFFEL & ESSER CO.

NEW YORK, 127 Fulton Street, **General Office and Factories, HOBOKEN, N. J.**

CHICAGO 516-20 S. Dearborn St. **ST. LOUIS** 817 Locust St. **SAN FRANCISCO** 30-34 Second St. **MONTREAL** 5 Notre Dame St. W.

Drawing Materials, Mathematical and Surveying Instruments, Measuring Tapes

The Hamilton Line Includes

Combination Drawing Tables and Filing Cabinets—Steel and Wood Sectional Blueprint Files — Drawing Tables — Folding Horses and Trestles—Typewriter Tables—Straight Edges—T Squares.

Hamilton Vertical Plan Safe

Provides for filing *vertically* large or small tracings, blueprints or similar records *without* folding, rolling or creasing.

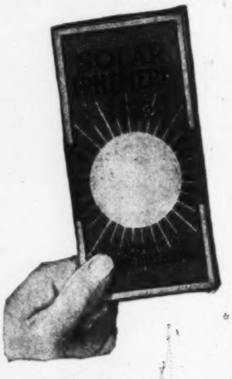
Plans are perfectly indexed and easily removed.

Its net capacity is equal to that of 20 flat drawers. It is fireproof, moisture proof and dust proof.

It will repay the cost of installation in the saving in time over other methods alone.

May we send you the Hamilton Catalog?

Hamilton Manufacturing Co.
Two Rivers, Wisconsin
Rahway, New Jersey



Your Copy—*free!*

AN abridgement of the Nautical Almanac with Tables of Mean Refractions in Declinations; Culminations of Polaris; Azimuth of Polaris at all Hour Angles; Elongation of Polaris and Azimuth of Polaris at Elongation; Rules for taking the Sun at any Latitude or Longitude with and without Solar Attachment; and Transit, Level and Solar Attachment Adjustments.

EUGENE DIETZGEN CO.

Branches: Chicago, New York, San Francisco, New Orleans, Pittsburgh
Sales Offices: Philadelphia, Washington
Factory: Chicago

The distinctive service features of the instruments comprising

The Gurley Line

are presented concisely in a new 32-page illustrated booklet.

Ask for your copy of M-480.

W. & L. E. GURLEY
Troy, N. Y.

Established 1845

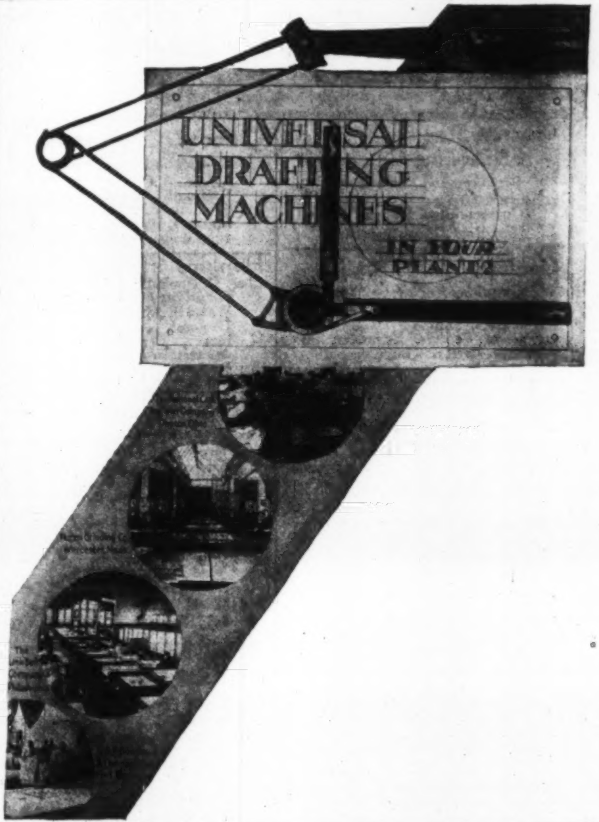
Quality Evidenced Since 1882

LIETZ

TRANSITS—LEVELS—ALIDADES
PRECISE—SENSITIVE—STRONG
The A. LIETZ CO., San Francisco, U. S. A

BERGER
Monitor Transits and Levels

C. L. BERGER & SONS
BOSTON, MASS., U. S. A.



THE saving in time and waste motion made possible by Universal Drafting Machines is naturally their basic advantage; but there is also corresponding improvement in the quality of work performed by draftsmen thus equipped. Clearer thinking is permitted by eliminating petty distractions and there is encouragement in shortening purely mechanical operations.

Universal Drafting Machines reduce brain fag and keep the mind clear for the main issue. They are used everywhere—in big shops and small.

Let us add your name to the list.

1921 Catalog for details

**Universal Drafting
Machine Company**
Cleveland, Ohio, U. S. A.

KOLESCH
Transits and Levels

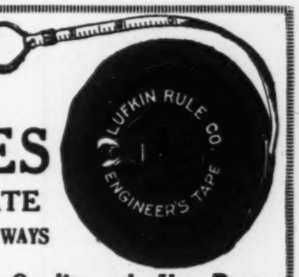
For more than ONE HUNDRED YEARS we have been making the finest line of ENGINEERS' and Draftsmen's instruments in the world.

Send today for full particulars and prices on your present requirements

KOLESCH & COMPANY
138 Fulton Street, New York

LUFKIN

TAPES
ACCURATE
RELIABLE ALL WAYS



Distinctive in Quality—the Very Best

On Sale Everywhere
Send for Catalogue

THE LUFKIN RULE CO.

NEW YORK
106 Lafayette Street **SAGINAW, MICH.** **WINDSOR, ONT.**

BUFF

62 years of Reputation

Send for New Catalog No. 2

BUFF & BUFF MFG. CO., Boston, Mass.
Branches: 46 Dey St., N. Y. City
231 N. Wells St., Chicago

**PERFECTION
PAPER CUTTER**

Made in four sizes. Ask for literature on paper cutting devices. We manufacture the Pease **Peerless Automatic Blue Printing, Washing, and Drying Machine and Pease Simplex Paper Coating Machines.**

Literature on request.

The C. F. Pease Co., 836 No. Franklin St., Chicago, Ill.

Send for Catalog BX-10 of
PRECISION
ENGINEERING INSTRUMENTS
Wm. Ainsworth & Sons
THE PRECISION FACTORY
DENVER, COLORADO, U. S. A.

These Exclusive Advantages you will find in

H. & B. Transits and Levels

All graduations are upon inlaid, solid sheet silver; every bearing is bronze against hard bell metal; all instruments are protected by complete sets of dust and rain guards. **Catalog on Request.**

Since 1870 **HELLER & BRIGHTLY**
Cor. Spring Garden St. and Ridge Ave., Philadelphia

Directory of Engineers

New England

Adams, H. S.
Consulting Engineer
Wharf and Dock Construction, Foundations, Harbor Works, Water Terminals
100-101 Ames Bldg.,
Boston (9) Mass.

Barbour, F. A.,
M.Am.Soc C.E. M.Can.Soc.C.E.
Consulting Engineer.
Water Supply, Water Purification, Sewerage and Sewage Disposal.
Boston, Mass., Tremont Bldg.

L. J. Carmalt
Consulting Engineer
Industrial site investigations in New England their Transportation, Labor and Economic Problems. General Engineering Studies—Railways, Terminals, etc.
129 Church St., New Haven Conn

Main, Charles T.,
M.Am.Soc.M.E.
Plans and Specifications for Textile Mills and other Industrial Plants, Water Power and Steam Power Development. Examinations and Reports on Plants with reference to their Value, Reorganization or Development.
Boston, Mass., 201 Devonshire Street.

McClure-Greene Eng. Co.
Civil and Consulting Engineers
Water Works, Sewage Disposal, Dams, Bridges, Hydraulic Developments, Examinations, Estimates, Reports, Plans, Specifications, Supervision.
Worcester, Mass., Park Bldg

Metcalf & Eddy,
Water Works Sewerage. Disposal of Sewage and Industrial Wastes. Supervision of Operations. Valuations.
Boston, Mass. 14 Beacon St.

Stone & Webster
Incorporated
Examinations Reports Valuations
on
Industrial And Public Service
Properties
New York Boston Chicago

Vaughn Engineers
John F. Vaughn
Design and Supervision
Hydraulic, Electrical
Steam, and Structural
Industrials & Public Utilities
Investigations and Reports.
Boston, Mass. 185 Devonshire St.

New York City New York and New Jersey

Banks & Craig
Engineers—Chemists
Design, Operation, Valuation, Investigations Water, Sewage, Industrial Wastes Food Chemistry, Dehydration, Colloids, Research
51 East 42nd St., New York
700 Telegraph Building, Harrisburg, Pa

Besselievre-Disher & Miller Inc.
Engineers and Constructors
Sewerage, Sewage Disposal, Water Supply, Utilities, Design, Construction, Reports, Field Service
New York, 50 Church Street

Bowe, Thomas F.,
Consulting Engineer.
Water, Sewerage, Disposal of Sewage. Municipal Engineering. Valuations, Reports, Inspection.
Rutherford, N. J., Assoc. Bldg.
30 E. 23rd St., New York City

Bradley, Walter
Mem. A. A. E.
Design—Construct.
Water Power Developments.
Steam Power Plants,
Paper Mills,
Surveys—Estimates
Fulton, N. Y.

City-Wastes Disposal Co.
Specialists in Drainage, Sewerage and Sewage Disposal. Reports and Estimates, Surveys, Plans and Supervision.
New York, 45 Seventh Avenue

Caird, James M.
Chemist and Bacteriologist.
Expert Testimony; Examinations and Reports upon Proposed Sources of Water Supplies; Tests and Supervision of Filter Plants; Copper Sulphate Treatments for Algae; Sterilisation Treatments; Sanitary Investigations, Including Typhoid Fever.
92 Fourth St., Troy, N. Y.

Cole, Edward S.
Hydraulic Engineer.
25 Elm St., New York

Cooper & Co., Hugh L.,
General Hydraulic Engineering.
Including the design, financing construction and management of hydro-electric power plants.
New York City, 101 Park Ave.

Concrete-Steel Engineering Co.
Designing and Supervising Engineers
Concrete-Steel Bridges
New York, Park Row Bldg

Coulter, Waldo S.
Consulting Engineer
Water, Sewerage, Industrial Wastes, Drainage, Power Valuations, Reports, Estimates, Surveys, Plans and Supervision.
114 Liberty St., New York City

Edwards, Glenn P.
Civil and Landscape Engineer,
Paving and Road Work—Municipal Water-works and Sewerage Systems—Parks Playgrounds and Private Estates.
Correspondence Invited.
93 State St. Albany

Ellsworth, Barrows & Reeves
Valuation Engineers
G. E. Barrows M. Am. Soc. C. E
Cuthbert E. Reeves
Member Am. Ry. Eng. Assn.
Buffalo, N. Y
50-52 West Eagle St.

Fowler, Charles Evan,
M. Am. Soc. C.E., M. Can. Soc. C.E.
Consulting Civil Engineer.
Bridges, Foundations, Dredges, Dredging, River and Harbor Improvement.
New York City, 25 Church St.

Ford, Bacon & Davis,
Engineers.
New York, 115 Broadway.

Roger M. Freeman
Construction Engineer
Design and Construction of Industrial Buildings, Steel Plants, Hydro-Electric Developments.
8 West 40th St. New York City
Tel. Murray Hill 0170.

Fuertes, James H.,
M.Am.Soc.C.E.
Civil and Sanitary Engineer.
Water Supply and Water Purification, Sewerage and Sewage Disposal.
New York, 140 Nassau St.

Fuller & McClintock
Engineers
Geo. W. Fuller
James R. McClintock
Jesse K. Giesey
Elmer G. Manahan
James C. Harding
Wellington Donaldson
Myron E. Fuller
Daniel C. Hayne
Harvey P. Jones
170 Broadway, New York City.
Valentine Bldg., Toledo, O.
Produce Exchange Bldg., Kansas City, Mo.

Gilmore, Thomas N.
Consulting Engineer—
M. Am. S. C. E., M. Am. S. M. E.
Railroad Shops, Locomotive Terminals, Power Plants, Steam Stations, Industrial Plants.
136 Liberty St. New York, N. Y.

Hopkins & Field,
Chas. C. Hopkins Arthur M. Field
Consulting Engineers.
Water Supply, Sewerage, Wastes Disposal, Municipal Engineering. Expert Testimony Appraisals.
Rochester, N. Y., 349 Cutler Building.

Hopkins Construct. Corp
Engineers—Constructors
Surveys Pavements
Design Highways
Construction Sewers
New Brunswick, N.J. 40 Paterson Street.

Hazen, Whipple & Fuller,
Allen Hazen, G. C. Whipple,
W. E. Fuller, C. M. Everett,
L. N. Babbitt, H. Malcolm Pirnie
Consulting, Hydraulic and Sanitary Engineers.
Water Supply, Sewerage, Drainage, Valuations, Supervision of Construction and Operation.
New York City, 30 E 42nd St

Hill & Ferguson,
N. S. Hill, Jr. S. F. Ferguson
Consulting Engineers.
Water Supply—Sewage Disposal—Hydraulic Development.
Reports Investigations
Valuations Management
Design Construction
Operation Rates
Chemical and Biological Laboratories
112 East 19th St., New York City.

Horton, Robert E.
Mem. Inst. C.E. Mem. Am. Soc. C.E
Consulting Hydraulic Engineer
Reports, Estimates, Design and Construction for Water Power, Water Supply, Storage, Flood Control, Irrigation and Drainage.
Specialist in Hydraulic and Hydrologic Problems, Rainfall, Evaporation, Stream Yield and Ground Water. Water Power Valuation.
27 Douw Bldg. Laboratory,
Albany, N. Y. Voorheesville, N.Y

George A. Johnson Co.
Incorporated
Consulting, Civil Electrical, Mechanical Engineers.
G. A. Johnson N. B. Wolfe
H. C. Stevens C. R. Wyckoff
Water Supply, Sewerage, Refuse Disposal, Power Development and Distribution, Industrial Plants and Public Utilities.
Reports, Designs, Supervision of Construction. Management.
150 Nassau St., New York City

William S. Lee
M. Am. Soc. C. E. M. Am. Soc. M. E.
M. Eng. Inst. Can.
Fellow Am. Inst. E. E.
Chief Eng Southern Power Co.
Consulting Engineer
511 Fifth Ave. New York City
Charlotte, North Carolina.

Directory of Engineers

Herbert C. Keith

M. Am. Soc. C. E.

Civil and Consulting Engineer

Design and Construction of Bridge and Structural Work, Masonry and Foundations, Railroads and Street Railways

Inspection and Valuation of Existing Structures.

Legal Engineering.

13 Park Row, New York City

Walter Kidde & Company

Incorporated

Engineers and Constructors

Inspections
Reports
Design
Construction

Industrial Plants
Wharfs and Piers
Power Plants
Chemical Works

New York City, 140 Cedar Street

Mead, Daniel W., Scheidenhelm, F. W.,

Consulting Engineers.

Hydro-electric Developments, Water Supply, Irrigation, Drainage, Flood Control.

3[illegible] Church St. New York

Meyer, Strong & Jones, Inc.

Power Plants—Mechanics and Electrical Equipment—Heating and Ventilating.

101 Park Ave., New York City.

Mueser, William

Consulting Engineer

Concrete-Steel Bridges
Concrete-Steel Standpipes

New York, Park Row Bldg.

Moran, Maurice & Proctor

Consulting Engineers.

Daniel E. Moran, C. E.

M. Am. Soc. C. E.
M. Am. Soc M. E.

C. F. Maurice, C. E.

Carlton S. Proctor, C. E.

Foundations for Dams, Bridges, Buildings and all Sub-Structure Work.

New York City, 5[illegible] Liberty Street

North, Allison & Ettlinger

Consulting Engineers—

City Surveyors Topographic Surveys of large tracts.
City Planning, Field Supervision Dock, Terminal Development.
Staten Island, New York, Crabtree Bldg.

Potter, Alexander,

Consulting Engineer.

Hydraulics Sanitation, Concrete Structures. Tel 5501 Cortlandt

New York, 50 Church Street.

Potts, Clyde

M. Am. Soc. C. E.

Consulting Sanitary Engineer

Sewerage and Sewage Disposal
Water Works and Water Supply
Reports, Plans and Estimates
30 Church St., New York.

Richmond, W. S.

Consulting Engineer

Mem. Am. Soc. C.E.
Hydraulic and Civil Engineering
1080 Ellicott Square Bldg.
Buffalo, N. Y.

Robinson, Geo. L.,

Consulting Engineer.

Sewers, Sewage Disposal, Water Supply.

New York 37-39 East 28th Street

Dwight P. Robinson & Company, Inc.

Engineers and Constructors

With which is consolidated

Westinghouse, Church, Kerr & Co., Inc.

Industrial Plants, Power Developments.

Railroad Shops and Terminals.

125 East 46th St., New York.

Chicago, Youngstown, Los Angeles, Montreal, Dallas.

Sanderson & Porter,

Engineers.

New York, 52 William Street,
Chicago, 72 West Adams Street;
11 Montgomery St. San Francisco

Seelye, Elwyn E.

Contractors' Engineer

101 Park Avenue

New York City.

Steinman, Dr. D. B.

M. Am. Soc. C. E. M. A. Ry. Eg. A.

Consulting and Designing Engineer

Bridges and other Structures Engineering Projects, Design, Supervision Investigation Reports, Valuations, Advisory Service.

New York 25 Church St.

Vermeule, Cornelius C.

Consulting and Designing Engineer

Water Supply, Sewerage.
Water & Steam Power Plants
Reports, Valuations

38 Park Row New York

Vrooman, Morrell,

Sewerage, Water Supply, Power Treatment of Industrial Wastes

Gloversville, N. Y., 10 N. Main St.

Waddell, Dr. J. A. L.

Consulting Engineer

Steel and Reinforced Concrete Structures, Waddell's Vertical Lift Bridge Difficult Foundations. Reports, Checking of Designs, Advisory Services, and Appraisals.

35 Nassau Street, New York.

The J. G. White Engineering Corporation

Engineers—Constructors

Industrial Plants, Buildings Steam Power Plants, Water Powers, Gas Plants, Steam and Electric Railroads, Transmission Systems.

43 Exchange Place New York

Wallace & Co., Joseph H.,

Consulting Industrial Engineers

Industrial and Power Plants Hydraulic Developments — Investigations — Consultation — Reports.

New York City, Toronto.

Ohio and Pennsylvania

Albright & Mebus,

Civil and Sanitary Engineers.

Sewerage, Sewage Disposal, Town Planning.

Philadelphia, Pa., 908 Land Title Building.

Chester Engrs., The J. N.

J. N. Chester D. E. Davis
J. F. LaBoon J. T. Campbell
E. E. Bankson

Consulting Hydraulic, Sanitary and Valuation Engineers.

Pittsburgh, Pa., Union Bank Bldg.

Clark, Wm. G.

Civil and Sanitary Engineer

F. G. Cunningham, Associate

Hydraulic, Sanitary and Municipal Engineering, Power Developments, Expert Examinations and Reports

1046 Spitzer Bldg., Toledo, O.

Day & Zimmermann, Inc.

Engineers

Industrial Plants, Power Plants, Sub-Stations, Transmission Lines, Examinations and Reports, Valuations, Management of Public Utilities.

611 Chestnut St., Philadelphia, New York City Chicago.

Easby, William, Jr.

M. Am. Soc. C.E.

Civil and Sanitary Engineer.

Sewerage.
Sewage Disposal.
Water Supply.
Water Purification.
Water Power.
Pavements and Highways.
Investigations, Designs, Supervision of Construction Operation and Valuation

Philadelphia, Pa., 1302-3 Commonwealth Building, 1201 Chestnut St.

Fayette Engineering Co.,

Civil, Mining and Consulting Engines

L. C. Mechling, E. L. Zearley.
Coal, Coke Plants.

Uniontown, Pa.

Fogg, Ralph J. M. A. Soc. C. E.

Civil and Consulting Engineer

Investigations & Reports
Steel & Concrete Structures
Design, Inspection, Valuation
Inspection of Steel & Cement at mills. Testing of Materials.
Bethlehem, Pa.

Franklin & Company

Consulting Engineers

Water Supply-Sewage Disposal
Town Planning.
Reports, Valuation, Design.
Philadelphia, 9067 Crozer Bldg.

Gannett, Seelye & Fleming

Engineers

Reports — Valuations — Design, Management — Municipalities, Utilities — Industrials.

Erie, Pa. — Harrisburg, Pa.
Memphis, Tenn.

Ledoux, J. W.

Consulting Engineer

Water Works, Water Power, Power Plants, Reports, Designs, Construction Supervision, Valuation, Arbitration, Rate Schedules

112 North Broad St., Phila., Pa.

Levinson, H. J.

Consulting Engineer

Power Plants, Industrial Plants, Mechanical Refrigeration, Ice Plants, Construction, Installing, Supervision, Inspection, Tests, Reports

Phila., Pa., 4920 N. Warnock St

Moore, W. E. & Co.,

Engineers

Reports, Designs and Supervision of Public Service Properties.
Industrial Plant Installations
Electric Furnace Design and Applications
Pittsburgh, Pa., Union Bank Bldg.

Scofield Engineering Co.,

Consulting, Designing, Supervising Engineers.

Philadelphia Pennsylvania

Swigart & Ehrman

S. G. Swigart, M. Am. Soc. C. E.
Geo. L. Ehrman

Civil Engineers

Surveys—Plans—Reports
Supervision of Construction.

Sewerage & Water Supply.
Pavements & Highways.
Irrigation & Drainage.
Hydraulic Developments.
Railroads & Street Railways.
Topographic Mapping.

1118-19-20 Second National Bldg.,
Akron, Ohio

Watson Engineering Company, The

Designing and Construction Engineers

Industrial and Power Plant and Equipment, Bridges and Railway Buildings, Docks, Terminals and Marine Structures.

Warehouses and Commercial Buildings

Engineering Reports.

4614 Prospect Ave., Cleveland

Wilkins Company, The W.G.

Engineers and Architects.

Railroads, Buildings, Manufacturing Plants, Coal and Coke Plants, Water Works and Sewerage. Examinations and Reports.

Pittsburgh, Pa. Westinghouse Building

Directory of Engineers

Chicago and Illinois

Chicago Bascule Bridge Company
Consulting Engineers
Fixed and Movable Bridges, Viaducts, Industrial Buildings, and Power Plants.
Chicago 805 Oxford Bldg.

Alvord & Burdick,
J. W. Alvord C. B. Burdick
Hydraulic and Sanitary Engineers

Water Supply
Water Purification
Flood Relief
Sewerage
Sewage Disposal
Appraisals and Rate Reports
Water Power

Chicago, Hartford Building.

The Arnold Company

Engineers—Constructors

Power Plants
Industrial Plants
Locomotive Terminals
Maintenance Shops
Designed in Entire Detail
Erected Complete, Including
Preliminary Operation.

105 So. La Salle Street, Chicago.

Byllesby Engineering & Management Corp.

208 S. La Salle Street, Chicago
New York Tacoma

Chase, Frank D., Inc.
Engineers
Location, Layout, Design, Construction and Equipment of Industrial Plants.
Chicago, 645 N. Michigan Ave.]

J. L. Jacobs & Company
Engineers and Cost Accountants
Investigations, Reports, Appraisals, Organization and Management, Cost Accounting Systems, Employment and Wage-Plans.
Monadnock Building, Chicago

Krauel, H. B.
Design and Construct
Buildings
Bridges
Industrial Plants
Danville, Ill.

Maury, Dabney H.,
Consulting Engineer
Water Works, Sewerage,
Power Plants, Appraisals.
Chicago, Ill., 1445 Monadnock Bldg.

Randolph-Perkins Co.
Engineers-Managers
Successors to:

Isham Randolph & Co.
Edmund T. Perkins Eng'g Co.
George B. Massey Co.

Land Drainage Levees and Pumping Plants, Flood Protection, Water Supply, Sewage Disposal, Excavation Specialists
Stripping Properties Prospected.

1210 First National Bank Bldg. Chicago.

Shourds-Stoner Co.
Consulting Engineers.
Mining, Structural, Civil, Mechanical & Electrical Engineering Departments,
Appraisals, Reports, Surveys
Harris Trust Bldg., Chicago, Ill.
Tribune Bldg., Terre Haute, Ind.

Stern, I. F.
Consulting Engineer
Bridges, Buildings and other Structures. Engineering Projects. Design, Supervision, Investigation, Reports, Valuations, Advisory Service.
Chicago, Ill., First Natl. Bk. Bldg

Central West

American Appraisal Company, The

Authoritative Reports and Valuations Covering Public Utility, Municipal, Mineral, Industrial, Commercial and Residence Properties.

Milwaukee New York

Black & Veatch
Consulting Engineers.

Sewerage, Sewage Disposal, Water Supply, Water Purification, Electric Lighting, Power Plants, Valuations, Special Investigations and Reports.

E. B. Black N. T. Veatch, Jr.
A. P. Learned I. S. Siegrist
E. H. Dunmire J. F. Brown
C. A. Haskins

Kansas City, Mo., Mutual Building.

Benham & Mullergren
W. L. Benham A. L. Mullergren
Consulting Engineers
Water supply and purification; sewerage and sewage disposal; electric light and power; pavements; reports and appraisals.
Firestone Bldg., Kansas City, Mo.

Burns & McDonnell,
S. Burns. R. E. McDonnell.
Consulting Engineers.
Appraisals, Rate Investigations, Expert Testimony, Water Works, Sewerage, Lighting.
Kansas City, Mo., Suite 400 Inter-State Bldg.

Fargo Engineering Co
Consulting Engineers
Hydro-Electric and Steam Plants
Difficult Dam Foundations.
Jackson, Michigan

Federal Engineering Co.,
Civil and Architectural Engineers.
Designers and Superintendents Buildings and Industrial Plants.
Milwaukee, Wis., 218 - 219 Stephenson Building.

Harrington, Howard and Ash
Consulting Engineers. Bridges and other structures of steel and reinforced concrete. Advisory services in municipal problems. Appraisals. Kansas City, Mo.
1012 Baltimore Avenue.

Hubbell, Clarence W.,
M.Am.Soc.C.E.
Consulting Engineer.
Sewerage, Sewage Disposal, Water Supply and Municipal Engineering.
Detroit, Mich., 2348 Penobscot Building.

Keerl & Conklin
Water Supply and Purification
Land Drainage & Reclamation
Sewerage and Sewage Disposal
Treatment of Industrial Wastes
Investigation of Water Pollution
Sanitary Chemical Analyses
625 M-B-A Bldg., Mason City Ia.

Luten, Daniel B.,
Designing and Consulting Engineer.
Reinforced Concrete Bridges exclusively.
Associate Engineers in each state
Indianapolis, Ind.

Meyer, Adolph F.
Consulting Hydraulic Engineer
Member, Am. Soc. C. E.
Minneapolis, 628 Met. Bk. Bldg.

Shenehon, Francis C.
Hydraulic Engineer
M. Am. Inst. Cons. Engrs.
M. Am. Soc. C. E.
Water Power, Flood Relief, Drainage, River Diversions, Counsel Engineering Litigation.
Minneapolis, 628 Met. Bk. Bldg.

Siteman & Cooper
Consulting Civil Engineers
Pavements
Highways
Drainage
Fed. Res. Bank Bldg. St. Louis

Smith & Co., C. E.
Consulting Engineers
Appraisals, Expert Testimony, Bridges, Electrification, Foundations, Highways, Docks, Water Supply, Flood Protection.
2065 Railway Exch., St. Louis
Chicago, Kansas City.

Turner, C. A. P.,
Consulting Engineer.
M. Am. Soc. C. E., Reinforced Concrete and Structural Steel Bridges, Buildings and Manufacturing Plants.
Minneapolis, Minn., 627 First Ave. N.

Williams, Gardner S.,
M. Am. Inst. Cons. Engr.
M. Am. Soc. C. E.
Consulting Engineer.
Hydraulic Investigations, Water Power Developments, Water Supply Systems, Reports, Appraisals. Ann Arbor, Michigan.

Southern States

Allen & FitzSimons, Inc.
Engineers
James P. Allen, W.S. FitzSimons
River & Harbor Works, Plans and Estimates for Dredging Examinations—Reports—Consultation
General Surveying, Mapping.
11 Broad St. Charleston, S. C.

Howard D. Bennett
Consulting and Contracting Eng'r
Dredges of all types Designed and Built for every service Municipal Fire, Ice and Ferry Boats, Harbor and Terminal Development.
Plans, Specifications, Reports, Etc
2114 Allendale St. Baltimore, Md.

Black, McKenney & Stewart
Engineers
W. M. Black,
Maj. Gen. U. S. A. Retired.
Charles A. McKenney.
John Stewart.
River and Harbor—
Port and Terminal Work.
Hydro-Electric Development
Municipal and
Highway Engineering
Consulting — Organization — Administration.
618 Seventeenth St., N. W.
Washington, D. C.

Billingsley, James W.,
Preliminary Investigations, Detailed Plans, and Construction Supervision. For Industrial Developments, Docks, Roads, Bridges, Drainage and Municipal Improvements.
New Orleans, Louisiana.

DIRECTORY OF
ENGINEERS

RATES:

1½-inch card
$37.50 per quarter
($36.25 for advertising and
$1.25 for subscription)

¾-inch card
$22.50 per quarter
($21.25 for advertising and
$1.25 for subscription)

Directory of Engineers

Brown, W. E.
Investigations, Surveys, Reports and Designs, Land Drainage and Reclamation, Development of Properties, Dredging, River and Harbor Improvements, Port and Terminal Work, Coast Protection.
Miami Beach, Fla.

Greiner & Company, J. E.
Consulting Engineers
Design, Construction, Investigation. Advisory Services—Bridges, Docks, Piers, Warehouses and other Engineering Structures.
Pittsburgh, Pa. 40[illegible] Fulton Bldg.
Baltimore, Md. Fidelity Bldg.

Morgan Engineering Companies, The,
Hydraulic Engineers.
Flood Prevention — Irrigation— Drainage—Power Development.
Memphis, Dayton

Robert L. Totten
Mem. Am. Soc. C. E.
Consulting Engineer
Valuations & Reports, Railroads & Highways, Mining Investigations, Municipal Improvements.
Jefferson County Bank Bldg
Birmingham, Ala

Wehr & Walden
Engineers and Constructors.
Examination, Reports and Valuations, Industrial and Public Service Properties, Water Power.
102 West Fayette Street,
Baltimore, Md.

Weller, Francis R.
M. Am. Inst. E. E., M. Am. Soc. C. E.
Consulting Engineer
Hydro-Electric and Steam Power Plants, Reports, Appraisals, Designs, Construction; Properties Operated.
201-5 Mills Bldg Washington, D.C.

Rocky Mountain and Pacific States

Bowden Engineering Co.
Consulting, Surveying
Supervising Construction

Seattle, Wash., L. C. Smith Bldg.

Carpenter, L. G.
(Formerly L.G.&R.C.Carpenter, Consulting Engineers, Denver, Colo., and Ithaca, N. Y.)
Water Supply, Irrigation, Drainage, Investigations and Reports for Financial and Legal Interests
Denver, Colo, 702 1st N. Bk. Bldg

Grunsky, C. E.,
Consulting Engineer.
Valuations, Municipal Engineering, Irrigation & Flood Control. "Manager of C. E. Grunsky Co.," Cons. & Superv. Engrs.
San Francisco, Calif, Mechanics Institute Building.

Elrod Co., Henry Exall
General and Consulting Engineers
Utility Valuations for Rate Regulation. Special Investigations and Reports for Investors. Designs for and Supervision of Water-Works, Sewer Systems, Sewage Disposal Plants, Power Plants and Industrial Works.

Irrigation — Flood Control — Dams.

Los Angeles, Cal. (Temporary address, Hotel Windemere, Santa Monica).
Dallas, Texas, Interurban Bldg.

Miller, M. L. & Co.
Civil and Consulting Engineers
Paving, Sewerage, Sewerage Disposal, Water Supply, Light and Power Plants, City Planning, Bridge designing, Investigations and Reports.
2235 Gaylord St., Denver, Colo.

Thebo, Starr & Anderton, Inc. *Engineers and Constructors*
Design and Construction of Power Plants Hydro-Electric Irrigation and Industrial Projects, Appraisals, Investigations Reports, Plans and Specifications Sharon Building, San Francisco.. Fresno, Calif.

Cuba and Foreign

Alberto A. Ibargüen
Civil Engineer and Architect.
M. Am. Soc. C. E.—M. S. C. I.
Designs, Specifications, Estimates, and Supervision for Construction of All Kinds. Specialist in Reinforced Concrete Structure.
123 Marti St. Pinardel Rio, Cuba

Conrado E. Martinez, Rolando A. Martinez,
Consulting Engineers.
Sewers, Water Works, Surveys and Appraisals, Inspections, Town Planning, Reports and Designs, Investigations.
Havana Cuba, 59 Obispo St.

W. H. Shields
B. Sc. (Eq. Hon Glas.); C. E. (Glas.) B. Sc. (W. A.); A. M. I. C. E.; M. W. A. I. E.; M. R. S., W. A.
Civil and Consulting Engineer and Licensed Surveyor
Perth, Australia, Princess Bldg.
Cable address: Civileng Perth

J. L. Weller, M. E. I. C.
Consulting Engineer
Canals, Harbors, Docks, Drydocks, Movable Bridges, Dams, Difficult Foundations, Hydro-Electric Developments, Advisory Reports. Herkimer Apartments
Hamilton, Ont.

Inspecting and Testing Engineers

Electrical Testing Laboratories, Electrical, Photometrical and Physical Tests. Inspection and Tests of Electrical and Engineering Materials. Main Office and Laboratories, New York, 80th St., and East End Ave.

Hunt, Robert W. & Co.
Robert W. Hunt, Jno. J. Cone, D. W. McNaugher
Bureau of Inspection, Tests and Consultation
Chicago, New York, Pittsburgh, St. Louis, San Francisco, Seattle, Montreal, London.

New York Testing Laboratories
Chemical and Physical Tests.
Metals, Cements, Asphalts, etc.
Electrical Tests
Hydraulic Tests.
Pumps, Water-Waste, etc.
Expert Inspections.
For Cities and Industries.
Power Plant Tests.
80 Washington St., N. Y. C.

Professional Card Advertising

furnishes a particularly appropriate type of publicity to those offering a professional service to the field—and it costs less.

This Directory

is the recognized center where those offering a professional service to the field keep their names and addresses for ready reference.

Directory of Engineers
Inspecting & Testing Engineers
Engineering Schools and Colleges

Rates and Information on Request

ENGINEERING
Schools and Colleges

College of Engineering,

Courses in Civil, Mechanical, Electrical, Sanitary, Municipal, Chemical Engineering. Short course in Structural Drafting

Enter any time. No matriculation or registration fees. Expenses ¼ to ½ less than at other first-class schools. School year—Four quarters of 12 weeks each.

Length of Courses 120 Weeks Save one year and $1000.

Experienced Instructors. Splendid Laboratories.

For catalog, bulletins or information address: Albert Edwin Smith, President, Ohio Northern University, Ada, Ohio.

Lafayette College,
Technical Courses in Chemical, Civil, Electrical, Mechanical and Mining Engineering. Write for illustrated catalogue to the Registrar. Easton, Pa.

New York University College of Engineering
Civil, Mechanical, Chemical and Industrial Engineering.
For information address Chas. Henry Snow, Dean.
University Heights, New York.

Norwich University,

(Founded 1819)

The Military College of Vermont. Academic Courses in Civil and Electrical Engineering. Address Prof. H. R. Roberts.

Northfield, Vermont.

Clarkson College of Technology,

Courses leading to the degrees of Bachelor of Science in Chemical, Civil, Electrical and Mechanical Engineering.

Catalog upon application.

Potsdam, N. Y.

College of Engineering
Northwestern University
Five years of broad, thorough training; small classes, in which each student receives individual attention from head professors. Unsurpassed opportunities to see great engineering projects and meet engineers
A young thriving College in an old University.
Write for "Best Preparation for Engineering" and "Booklet of Views."
John F. Hayford, Director.
Evanston, Ill., Swift Hall.

WHAT AND WHERE TO BUY

A Classified Index of Advertisers in this Issue

Equipment, Apparatus and Supplies Used in the Civil Engineering and Contracting Fields with Names of Manufacturers and Distributors

See Last Page for Alphabetical Index

Acetylene, Compressed
Air Reduction Sales Co.

Asbestos & Asbestos Products
Carey Co., Philip
Keasbey & Mattison Co.

Ash Handling Machinery
Haiss Mfg. Co., Inc., Geo.
Jeffrey Mfg. Co.
Webster Manufacturing Co.

Asphalt
Carey Co., Philip
Standard Oil Co. of N. Y.

Asphalt Plants
Austin Machinery Corp.

Backfillers
Austin Machinery Corp.
Parsons Co.
Pawling & Harnischfeger Co.

Banks
Coal & Iron National Bank

Bar Chairs, Reinforcing
Concrete Steel Co.
Universal Clamp Co.

Barges, Concrete
Ambursen Construction Co., Inc.

Barges, Steel
American Bridge Co.

Bars, Iron & Steel
Buffalo Steel Co.
Ryerson & Son, Joseph T.

Beam Wrapping
Mitchell-Tappen Co.

Belt Dressing
Texas Co.

Belting
Link Belt Co.
Robins Conveying Belt Co.

Blasting Accessories
Atlas Powder Co.

Blocks and Tackle
Boston & Lockport Block Co.

Blowers, Pressure
American Gas Furnace Co.

Blueprinting Machinery
Pease Co., C. F.
Wickes Bros.

Blue Prints
Pease Co., C. F.

Boilers
Abendroth & Root M'f'g. Co.
Babcock & Wilcox Co.
Leffel & Co., James

Bolts, Nails, Nuts, Rivets & Spikes
Lackawanna Steel Co.
Ryerson & Son, Joseph T.

Books, Engineering and Technical
McGraw-Hill Book Co.

Bonding Companies
See Searchlight Section

Boxes, Annealing
Blaw-Knox Co.

Brakes, Air
Westinghouse Traction Brake Co.

Brick Making & Clay Working Machinery
Lakewood Engr. Co.

Bridges
American Bridge Co.
Belmont Iron Works
Berlin Constr. Co.
Blaw-Knox Co.
Boston Bridge Works
Eastern Bridge & Struc. Co.
Fort Pitt Bridge Works
Independent Bridge Co.
Kellogg Structural Steel Co.
Kenwood Bridge Co.
King Bridge Co.
Lackawanna Bridge Co.
Louisville Bridge & Iron Co.
Milwaukee Bridge Co.
Morava Construction Co.
Mount Vernon Bridge Co.
Parsons, Klapp, Brinckerhoff & Douglass
Penn. Bridge Co.
Phoenix Bridge Co.
Pittsburgh-Des Moines Steel Co.
Raymond Concrete Pile Co.
Riverside Bridge Co.
Shoemaker-Satterthwait Bridge Co.
Virginia Bridge & Iron Co.
Wisconsin Bridge & Iron Co.

Bridges, Bascule
Strauss Bascule Bridge Co.

Bridge Operating Mchy.
Earle Gear & Machine Co.
Steele & Condict, Inc.

Buckets, Automatic Dumping
Lakewood Engr. Co.

Buckets, Clam Shell
Advance Engineering Co.
Blaw-Knox Co.
Brown Hoisting Mchy. Co.
Haiss Mfg. Co., Inc., Geo.
Hayward Co.
Industrial Works
Kiesler Co., Joseph F.
Lakewood Engr. Co.
Link Belt Co.
McMyler Interstate Co.
Orton & Steinbrenner Co.
Owen Bucket Co.
Vulcan Iron Works of N. J.
Williams Co., G. H.

Buckets, Concrete
Insley Manufacturing Co.
Lakewood Engr. Co.
Union Iron Works

Buckets, Dragline
Brown Hoisting Mchy. Co.
Hayward Co.
Monighan Machine Co.
Smith Co., T. L.

Buckets, Dredging and Excavating
Blaw-Knox Co.
Haiss Mfg. Co., Inc., Geo.
Kiesler Co., Joseph F.
Marion Steam Shovel Co.
Osgood Co.
Owen Bucket Co.
Union Iron Works

Buckets, Electric Motor
Hayward Co.

Buckets, Elevator
(See Elevators, Bucket)

Buckets, Orange Peel
Hayward Co.
Industrial Works
Kiesler Co., Joseph F.
McMyler Interstate Co.
Orton & Steinbrenner Co.
Owen Bucket Co.
Vulcan Iron Works of N. J.

Building Paper
Carey Co., Philip

Buildings, Steel
Belmont Iron Works
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Cableways
Blaw-Knox Co.
Flory Manufacturing Co., S.
Lidgerwood Mfg. Co.
Mundy Hoisting Engine Co., J. S.
National Hoisting Eng. Co.
Roebling's Sons Co., J. A.
Wickwire-Spencer Steel Corp

Cableway Excavators
(See Excavators Cableway)

Caissons
American Bridge Co.
Lackawanna Steel Co.

Calcium Carbide
Air Reduction Sales Co.

Cars, Concrete
Easton Car & Constr. Co.
Lakewood Engr. Co.

Cars, Industrial V Dump
Easton Car & Constr. Co.
Insley Mfg. Co.
Koppel Industrial Car & Equip. Co.
Lakewood Engr. Co.
Ramapo Iron Works
Western Wheeled Scraper Co.

Carts, Concrete
Insley Mfg. Co.
Lakewood Engr. Co.

Castings, Iron and Steel
American Bridge Co.
Amer. Cast Iron Pipe Co.
Central Foundry Co.
Fox & Co., John
Jeffrey Mfg. Co.
Lakewood Engr. Co.
Link Belt Co.
Marion Malleable Iron Wks.
Marion Steam Shovel Co.
U. S. Cast Iron Pipe & Foundry Co.
Warren Fdry. & Mach. Co.

Castings, Street and Sewer
Central Foundry Co.
U. S. Cast Iron Pipe & Fdry. Co.

Castor, Plate
Terry Mfg. Co.

Cement
Lawrence Cement Co.
Pennsylvania Cement Co.
Vulcanite Port. Cement Co.

Cement-Guns
Cement-Gun Co.

Cement-Making Machinery
Allis-Chalmers Mfg. Co.
Austin Machinery Corp.
Smidth & Co., F. L.
Vulcan Iron Wks. of Wilkes-Barre
Willsea Works, The

Centers, Steel, Collapsible
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Chain
Ryerson & Son, Joseph T.

Chain, Steel and Malleable Sprocket
Haiss Mfg. Co., Geo.
Jeffrey Mfg. Co.
Link Belt Co.
Webster Manufacturing Co.

Channelers
Ingersoll-Rand Co.
Sullivan Machinery Co.

Chimneys, Concrete
General Concrete Constr. Co.
Heine Chimney Co.
Polk-Genung-Polk Co.
Rust Engineering Co.
Summerhays & Sons, Co. Wm.
Weber Chimney Co.
Wiederholdt Construction Co.

Chimneys, Radial Brick
American Chimney Corp.
Custodis Chimney Construction Co., Alphons
Heine Chimney Co.
Heinicke, Inc., H. R.
Kellogg Co., M. W.
Rust Engineering Co.
Summerhays & Sons Co. Wm.
Wiederholdt Construction Co.

Chimneys, Steel
Blaw-Knox Co.
Chicago Bridge & Iron Wks.

Chloride of Lime
Penna Salt Mfg. Co.

Chlorinators
Wallace & Tiernan Co.

Chlorine, Liquid
Electro Bleaching Gas Co.
Wallace & Tiernan Co.

Chutes, Concrete
Insley Manufacturing Co.
Lakewood Engr. Co.

Clutches, Friction
Webster Manufacturing Co.

Coal and Ore-Conveying Machinery
Allen Co., John F.
Brown Hoisting Machy. Co.
Byers Mach. Co.
Haiss Mfg. Co., Inc., Geo.
Jeffrey Mfg. Co.
Lidgerwood Mfg. Co.
Link Belt Co.
McMyler Interstate Co.
Webster Manufacturing Co.

Coal-Storage Systems
Haiss Mfg. Co., Geo.
Jeffrey Mfg. Co.
Lidgerwood Mfg. Co.
Link Belt Co.

Cofferdams, Steel
Lackawanna Steel Co.

Column Clamps
Concrete Steel Co.
M & M Form Clamp Co.
Universal Form Clamp Co.

Column Forms
Blaw-Knox Co.
Concrete Steel Co.
Hydraulic Steelcraft Co.

Compressors, Air, Heavy Duty
Allis-Chalmers Mfg. Co.
Chicago Pneumatic Tool Co.
De Laval Steam Turbine Co.
Ingersoll-Rand Co.
McKiernan-Terry Drill Co.
Sullivan Machinery Co.
Westinghouse Traction Brake Co.
Worthington Pump & Machinery Corp.

Compressors, Air, Portable
Cement-Gun Co.
Chicago Pneumatic Tool Co.
Ingersoll-Rand Co.
Sullivan Machinery Co.

Concrete Bond
Living-Stone Co., The

Concrete Floor Hardener
Anti-Hydro Waterproofing Co.
General Chemical Co.
Sonneborn Sons, Inc., L.

Concrete Making Machinery
Willsea Works, The

Concrete Reinforcement
American Steel & Wire Co.
Brown Hoisting Machy. Co.
Buffalo Steel Co.
Concrete Steel Co.
Consolidated Expanded Metal Co.'s
Hydraulic Steelcraft Co.
Keystone Gypsum Fireproofing Co.
Lackawanna Steel Co.
Midwest Steel & Supply Co.
Mitchell-Tappen Co.
Northwestern Expanded Metal Co.
Ryerson & Son, Joseph T.
Wickwire-Spencer Steel Corp.

Condensers
Ingersoll-Rand Co.
Manistee Iron Wks.
Worthington Pump & Machinery Corp.

Conveyors, Belt
Haiss Mfg. Co., Inc., Geo.
Jeffrey Mfg. Co.
Link Belt Co.
Robins Conveying Belt Co.
Smith Engineering Co.
Webster Manufacturing Co.

Conveyors, Bucket
Haiss Mfg. Co., Inc., Geo.
Jeffrey Mfg. Co.
Link Belt Co.
Webster Manufacturing Co.

Corner Bead Metal
Consolidated Expanded Metal Co.

Cranes, Full Circle
Terry Mfg. Co.

Cranes, Locomotive
Amer. Hoist & Derrick Co.
Ball Engine Co.
Bay City Dredge Works
Brown Hoisting Machy. Co.
Browning Co.
Byers Mach. Co.
Clyde Iron Works Sales Co.
Davenport Locomotive Wks.
Industrial Works
Link Belt Co.
McMyler Interstate Co.
Marion Steam Shovel Co.
Ohio Locomotive Crane Co.
Orton & Steinbrenner Co.
Osgood Co.
Pawling & Harnischfeger Co.
Thew Shovel Co.

Cranes, Traveling
Brown Hoisting Machy Co.
Cleveland Crane & Eng. Co.
Link Belt Co.
Pawling & Harnischfeger Co.
Toledo Crane Co.

Cranes, Wrecking
Bucyrus Co.
Industrial Works

Creosoted Blocks, Timber, Poles ,Cross-Arms Lumber, etc.
American Creosoting Co.
Eppinger & Russell Co.
Republic Creosoting Co.
S.P.F. Wood Preserving Co.
Wyckoff Pipe & Creosoting Co.

Creosoting
American Creosote Works
Barrett Co.
Eppinger & Russell Co.
Republic Creosoting Co.
Wyckoff Pipe & Creosoting Co.

Creosoting Oils
Barrett Co.
Northeastern Co.
Protexol Corp.
Republic Creosoting Co.

Crushers and Pulverizers
Allis-Chalmers Mfg. Co.
Jeffrey Mfg. Co.
Orton & Steinbrenner Co.
Smidth & Co., F. L.
Smith Engineering Co.
Universal Road Machinery Co.
Worthington Pump & Machinery Corp.

Culverts, Corrugated
Newport Culvert Co.

Culverts, Metal
Amer. Sheet & Tin Plate Co.
Newport Culvert Co., Inc.
U. S. Cast Iron Pipe & Foundry Co.

Culverts, Nestable & Riveted Corrugated
Newport Culvert Co.

Curb, Steel Protected
Concrete Steel Co.

Cutting Blowpipes, Oxyacetlyne
Milburn Co., Alexander

Dams
Ambursen Construction Co.

Derricks and Derrick Fittings
Amer. Hoist & Derrick Co.
Bay City Dredge Works
Byers Mach. Co.
Clyde Iron Works Sales Co.
Dobbie Fdry & Machine Co.
Haiss Mfg. Co., Geo.
Hayward Co.
Insley Manufacturing Co.
Lidgerwood Mfg. Co.
McMyler Interstate Co.
Mundy Hoisting Engine Co., J. S.
Terry Mfg. Co.

Disinfecting Chemicals
Electro Bleaching Gas Co.
Wallace & Tiernan Co.

Distributors, Pressure Oil
(See Road Oilers, Pressure)

Ditching Machinery
(See Excavators)

Docks and Harbor Work
Parsons, Klapp, Brinkerhoff & Douglass
Snare Corp., Frederick

Drafting Machines
Universal Drafting Mach Co.

Drafting Room Furniture
Dietzgen Co., Eugene
Hamilton Manufacturing Co.
Pease Co., C. F.

Drawing Materials
Dietzgen Co., Eugene
Hamilton Manufacturing Co.
Keuffel & Esser Co.

Drawing Tables
(See Tables and Boards, Drawing.)

Dredges
Hayward Co.
Lidgerwood Mfg. Co.
Marion Steam Shovel Co.
Osgood Co.

Dredges, Dipper
Austin Machinery Corp.
Bucyrus Co.
Osgood Co.

Dredges, Hydraulic
Atlantic Gulf & Pacific Co.
Bucyrus Co.
Marion Steam Shovel Co.
Morris Machine Co.

Drills, Core
Ingersoll-Rand Co.
McKiernan-Terry Drill Co.
Sullivan Machinery Co.

Drills, Rock
Chicago Pneumatic Tool Co.
Jeffrey Mfg. Co.
Ingersoll-Rand Co.
McKiernan-Terry Drill Co.
Sullivan Machinery Co.

EASTMAN KODAK COMPANY

Porter Fireless Locomotives

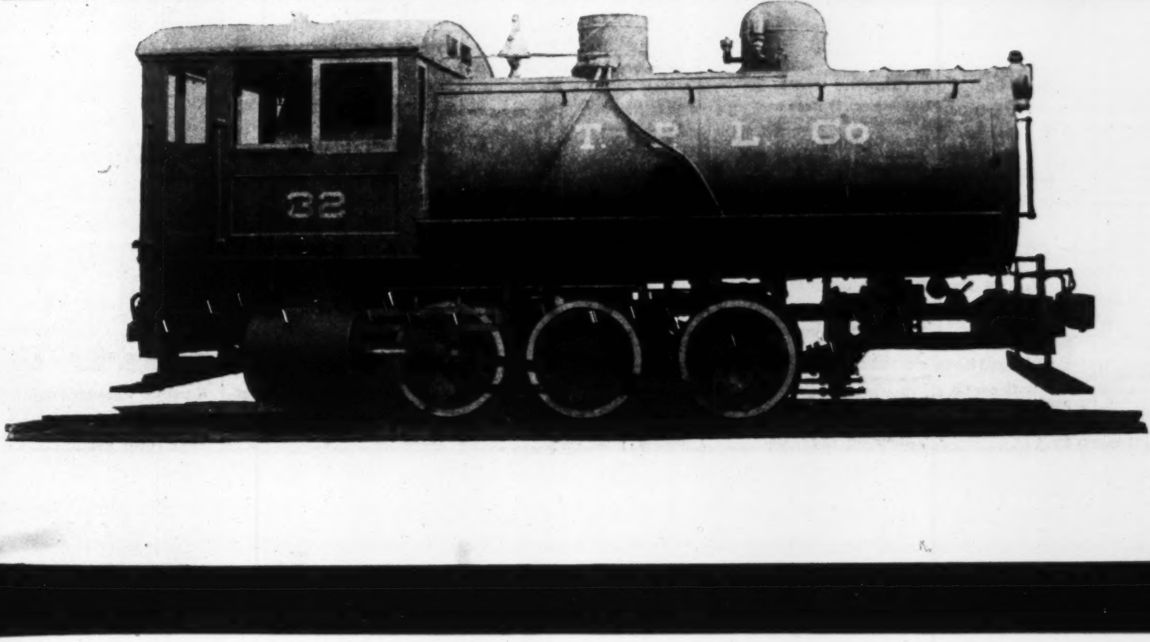
Made For A Definite Purpose

The PORTER Fireless Steam Locomotive is offered on its merits for a wide range of shifting and similar service, for either standard or narrow gauge track, for use inside buildings, as well as outdoor use, and where the radius of operation is not excessive and where a suitable steam boiler plant is available.

The Porter Fireless Locomotive is competent to handle heavy trains and it is also ideal for use where the service is not great enough, or is too irregular, to justify the purchase of a steam locomotive of usual type.

Complete data and catalogue on request

H. K. Porter Company, Union Bank Bldg., Pittsburgh, Pa.



Drums, Holding
Blaw-Knox Co.
Haiss Mfg. Co., Inc., Geo.
Hayward Co.
Monighan Machine Co.

Dryers
Blaw-Knox Co.

Dynamite
Atlas Powder Co.

Elevators, Bucket
Haiss Mfg. Co., Inc., Geo.
Hendrick Mfg. Co.
Link Belt Co.
Ohio Locomotive Crane Co.
Smith Engineering Co.
Webster Manufacturing Co.

Elevators; Contractors' Material
Byers Mach. Co.
Haiss Mfg. Co., Inc., Geo.
Insley Manufacturing Co.
Smith Co., T. L.
Smith Engineering Co.

Elevators, Factory
Ridgway & Son Co., Craige

Engineers and Contractors
Atlantic Gulf & Pacific Co.
Parsons, Klapp, Brinckerhoff & Douglass
Raymond Concrete Pile Co.
Smith, Hauser & McIsaac.
Spencer, White & Prentiss
Terry & Tench Co., Inc.
(See also Directory of Engineers).

Engineers' and Draftsmen's Instruments and Supplies
Dietzgen Co., Eugene
Gurley, W. & L. E.
Hamilton Manufacturing Co.
Keuffel & Esser Co.
Kolesch & Co.
Leupold-Voelpel Co.
Lufkin Rule Co.

Engines, Gas, Gasoline & Oil
Allis-Chalmers Mfg. Co.
Chicago Pneumatic Tool Co.
Fairbanks, Morse & Co.
Ingersoll-Rand Co.
National Hoisting Eng. Co.
Smith Co., T. L.
Wisconsin Motor Mfg. Co.

Engines, High Duty Water-Works
Morris Machine Co.

Engines, Hoisting
(See Hoists)

Engines, Portable
Leffel & Co., James

Engines, Steam
Chicago Pneumatic Tool Co.

Engines Traction
Best Tractor Co., C. L.

Excavators, Cableway
Clyde Iron Works Sales Co.
Lidgerwood Mfg. Co.
Mundy Hoisting Engine Co., J. S.
Sauerman Bros.

Excavators, Ditch & Trench
Austin Machinery Corp.
Bay City Dredge Works Co.
Bucyrus Co.
Byers Mach. Co.
Fritz & Co., Inc., W. G.
Marion Steam Shovel Co.
Osgood Co.
Parsons Co.
Pawling & Harnischfeger Co.
Thew Shovel Co.

Excavators, Dragline
Austin Machinery Corp.
Bay City Dredge Works
Bucyrus Co.
Byers Mach. Co.
Hayward Co.
Marion Steam Shovel Co.
Monighan Machine Co.
Osgood Co.
Pawling & Harnischfeger Co.
Sauerman Bros.
Smith Co., T. L.

Expanded Metal
Consolidated Expanded Metal Co.
Northwestern Expanded Metal Co.

Explosives
Atlas Powder Co.

Feed Water Heaters
Worthington Pump & Machinery Corp.

Fences & Gates, Iron & Wire
Amer. Fence Constr. Co.

Filters, Water, Municipal and Industrial
American Water Softener Co.
Graver Corporation
International Filter Co.
N. Y. Continental Jewell Filtration Co.
Pittsburgh Filter Mfg. Co.
Roberts Filter Mfg. Co.
Simplex Valve & Meter Co.
Worthington Pump & Machinery Corp.

Fire Clay
Delaware Clay Products Co.
Dickey Clay Mfg. Co.

Fireproof Material and Construction
Keasbey & Mattison Co.

Floor Hardener, Concrete
(See Concrete Floor Hardener.)

Floor, Wood Block
Barrett Co.
Republic Creosoting Co.

Flooring, Fireproof
Irving Iron Works

Flumes, Iron & Steel
Blaw-Knox Co.

Form Clamps
Concrete Steel Co.
Insley Mfg. Co.
M. & M. Form Clamp Co.
Universal Form Clamp Co.

Form Tighteners
Concret Steel Co.
Marion Malleable Iron Wks.

Forms, Culvert, Road, Sewer, Tunnel, etc,
Blaw-Knox Co.
Foote Co.
Hydraulic Steelcraft Co.

Forms for Curb and Gutter
Blaw-Knox Co.

Forms for Walls, Building Construction, etc.
Blaw-Knox Co.
Concrete Steel Co.
Hydraulic Steelcraft Co.

Foundations
American Bridge Co.
Lackawanna Steel Co.
MacArthur Concrete Pile & Foundation Co.
Raymond Concrete Pile Co.
Smith, Hauser & MacIsaac.
Spencer, White & Prentis.
Underpinning & Foundation Co.

Frogs and Switches, Railway
Easton Car & Constr. Co.
Lakewood Engr. Co.
Ramapo Iron Works

Furnaces, Annealing & Tempering
American Gas Furnace Co.

Furnaces, Gas
American Gas Furnace Co.

Garbage Disposal Apparatus
Jeffrey Mfg. Co.

Gas, Chlorine
Electro Bleaching Gas Co.

Gas Producers
Blaw-Knox Co.

Gates, Sluice
Coffin Valve Co.
Caldwell-Wilcox Co.
Crane Co.
Ludlow Valve Mfg. Co.

Gauges, Loss of Head
Simplex Valve & Meter Co.

Gauges, Rates of Flow
Simplex Valve & Meter Co.

Gears
Earl Gear & Mach. Co.

Generators, Electric
Allis-Chalmers Mfg. Co.
Fairbanks-Morse & Co.

Glass, Fireproof
(See Wire Glass)

Governors, Waterwheel
Woodward Governor Co.

Graders, Road
Smith Co., T. L.
Western Wheeled Scraper Co.

Gratings, Subway
Irving Iron Works

Gravel Washing Plants
Link Belt Co.
Sauerman Bros.

Gypsum
Keystone Gypsum Fireproofing Co.

Hammers, Pneumatic
Chicago Pneumatic Tool Co.
Ingersoll-Rand Co.
National Hoisting Eng. Co.

Hammers, Steam Pile
(See Pile Hammers, Steam)

Heaters, Concrete Water
Graver Corporation
Lakewood Engr. Co.

Hoists, Concrete Tower
Insley Manufacturing Co.
Lakewood Engr. Co.

Hoists, Contractors' Electric
Allis-Chalmers Mfg. Co.
Amer. Hoist & Derrick Co.
Bay City Dredge Works
Byers Mach. Co.
Clyde Iron Works Sales Co.
Dobbie Foundry & Mach.Co.
Flory Mfg. Co., S.
Ingersoll-Rand Co.
Lidgerwood Mfg. Co.
Monighan Machine Co.
Mundy Hoisting Eng. Co., J. S.
National Hoisting Eng. Co.
Stroudsburg Engine Works

Hoists, Contractors' Gasoline
Gray Iron Foundry Co.
Lidgerwood Mfg. Co.
Mundy Hoisting Eng. Co., J. S.
National Hoisting Eng. Co.
Stroudsburg Engine Works

Hoists, Contractors' Steam
Allis-Chalmers Mfg. Co.
Amer. Hoist & Derrick Co.
Byers Mach. Co.
Clyde Iron Works Sales Co.
Flory Manufacturing Co., S.
Ingersoll-Rand Co.
Lansing Co.
Lidgerwood Mfg. Co.
Mundy Hoisting Eng. Co. J. S.
National Hoisting Eng. Co.
Stroudsburg Engine Works
Vulcan Iron Wks of Wilkes-Barre, Pa.

Hoists, Pneumatic
Chicago Pneumatic Tool Co.
Ingersoll-Rand Co.
Stroudsburg Engine Works
Sullivan Machinery Co.

Hoppers, Concrete
Insley Manufacturing Co.
Lakewood Engr. Co.

Hose, Air
Chicago Pneumatic Tool Co.

Hydrants
Kennedy Valve Mfg. Co.
Ludlow Valve Mfg. Co.
Rensselaer Valve Co.
Smith Mfg. Co., A. P.
Wood & Co., R. D.

Incinerators
Power Specialty Co.

Inserts, Concrete
Concrete Steel Co.

Inspecting Laboratories
(See Directory of Engineers)

Instruments, Drawing
Keuffel & Esser Co.

Instruments, Surveying
Ainsworth & Sons, Wm.
Berger & Sons, C. L.
Buff & Buff Mfg. Co.
Gurley, W. & L. E.
Keuffel & Esser Co.
Lietz Co., A.

Iron Work, Structural and Ornamental
Hendrick Mfg. Co.
Irving Iron Works
Ryerson & Son Co., Jos.
Snead Architectural Iron Works

Jacks, Lifting
McKiernan-Terry Drill Co.
Norton, Inc., A. O.

Joints, Expansion Paving
Barrett Co.
Carey Co., Philip

Joints, Filler Paving
Barrett Co.
Standard Oil Co. of N. Y.

Joints, Flexible Pipe
Central Foundry Co.
Crane Co.
U. S. Cast Iron Pipe & Foundry Co.

Lath, Expanded Metal
Consolidated Expanded Metal Co's
Hydraulic Steelcraft Co.
Mitchell-Tappen Co.
Northwestern Expanded Metal Co.

Leadite
Leadite Co., Inc., The

Lights, Contractors'
Milburn Co., Alexander

Loaders, Wagon
(See Wagon Loaders)

Locomotives, Compressed Air
Porter Co., H. K.
Vulcan Iron Wks. of Wilkes-Barre, Pa.

Locomotives, Electric
Jeffrey Mfg. Co.

Locomotives, Fireless Steam
Porter Co., H. K.

Locomotives, Gasoline
Fate Root Heath Co.
Hadfield-Penfield Steel Co.
Lakewood Engr. Co.
Vulcan Iron Wks of Wilkes-Barre, Pa.
Whitcomb Co., Geo. D.

Locomotives, Steam
Davenport Locomotive Wks.
Koppel Industrial Car & Equip. Co.
Porter Co., H. K.
Vulcan Iron Wks of Wilkes-Barre, Pa.

Locomotives, Storage Battery
Whitcomb Co., Geo. D.

Lubricants
Greene, Tweed & Co.
Texas Co.

Lumber
Exchange Sawmills Sales Co.
Lawson & MacMurray

Manhole Covers
Central Foundry Co.

Manometers
Simplex Valve & Meter Co.

Meter Boxes
Pittsburgh Meter Co.

Meter Provers
Hersey Mfg. Co.
Pittsburgh Meter Co.

Meters, Boiler Feed Water
Builders Iron Foundry

Meters, Current
Gurley, W. & L. E.

Meters, Gas and Steam
Builders Iron Foundry
Wallace & Tiernan Co.

Meters, Venturi
Builders Iron Foundry

Meters, Water, Oil, etc.
Builders Iron Foundry
Gamon Meter Co.
Hersey Mfg. Co.
Neptune Meter Co.
Pittsburgh Meter Co.
Simplex Valve & Meter Co.

Mixers, Asphalt
(See Mixers, Hot)

Mixers, Concrete
Austin Machinery Corp.
Cement-Gun Co.
Foote Co.
Knickerbocker Co.
Lakewood Engr. Co.
Lansing Co.
Smith Co., T. L.

Mixers, Grout
Austin Machinery Corp.
Lakewood Engr. Co.
Union Iron Works

Mixers, Hot
Austin Machinery Corp.

Mixers, Mortar
Austin Machinery Corp.
Knickerbocker Co.
Lakewood Engr. Co.
Lansing Co.

Mixers, Paving
Austin Machinery Corp.
Foote Co.
Lakewood Engr. Co.
Smith Co., T. L.

Motors, Electric
Allis-Chalmers Mfg. Co.
Fairbanks-Morse & Co.
Westinghouse Traction Brake Co.

Motors, Gasoline
Wisconsin Motor Mfg. Co.

Motor Trucks
(See Trucks, Motor)

Oil Lubricating
Texas Co.

Oxy-Acetylene Process
Air Reduction Sales Co.
Blaw-Knox Co.

Oxygen
Air Reduction Sales Co.

Packing, Water Pipe
Greene, Tweed & Co.
Jenkins Bros.

Paints, Graphite
National Lead Co.

Paints, Metal Protective
Barrett Co.
Carey Co., Philip
National Lead Co.
Protexol Corp.

Partitions
Keystone Gypsum Fireproofing Co.

Paving, Asphalt
Texas Co.

Paving Blocks, Creosoted Wood
See Creosoted Block Timber, Poles, Cross-Arms, Lumber, etc.

Paving Blocks, Granite
Leopold & Co., J.

Paving Brick
Dunn Wire-Cut Lug Brick Co.

Paving Joint Filler
Texas Co.

Penstocks
Blaw-Knox Co.
Lackawanna Steel Co.

Pile Drivers
Industrial Works
McKiernan-Terry Drill Co.
McMyler Interstate Co.
Union Iron Works
Vulcan Iron Works of Chicago

Pile Hammers, Steam
Industrial Works
McKiernan-Terry Drill Co.
National Hoisting Eng. Co
Union Iron Works

Piles, Concrete
MacArthur Concrete Pile & Foundation Co.
Raymond Concrete Pile Co

Piling, Interlocking Street
Carnegie Steel Co.
Lackawanna Steel Co.

Pipe Bends
East Jersey Pipe Co.

Pipe, Cast Iron
Amer. Cast Iron Pipe Co.
Central Foundry Co.
Fox & Co., John
Glamorgan Pipe & Fdry Co
U. S. Cast Iron Pipe & Foundry Co.
Warren Fdry. & Mach. Co
Wood & Co., R. D.

Pipe, Concrete
Independent Concrete Pipe Co.
Lock Joint Pipe Co.

Pipe, Corrugated
Newport Culvert Co.

Pipe Covering, Asbestos
Carey Co., Philip

Pipe Covering, Wood
Michigan Pipe Co.
Standard Wood Pipe Co.
Wyckoff & Son Co., A.

Pipe, Dredge
Machold & Riddell

Pipe Fittings
Builders Iron Foundry
Central Foundry Co. Co.
U. S. Cast Iron Pipe & Foundry Co.
Westinghouse Traction Brake Co.

Pipe Joint Compounds (Pressure)
Leadite Co., Inc., The

Pipe, Lap Welded
American Spiral Pipe Wks.

Pipe, Lock Bar
East Jersey Pipe Co.

Pipe, Lock Joint
Lock Joint Pipe Co.

Pipe, Reinforced Concrete
Independent Concrete Pipe Co.
Lock Joint Pipe Co.
United Concrete Pipe Co

Pipe, Riveted Steel
American Spiral Pipe Wks.
Blaw-Knox Co.
East Jersey Pipe Co.
Machold & Riddell
Petroleum Iron Works Co
Tippett & Wood

Pipe Shoes
Marion Malleable Iron Wks.

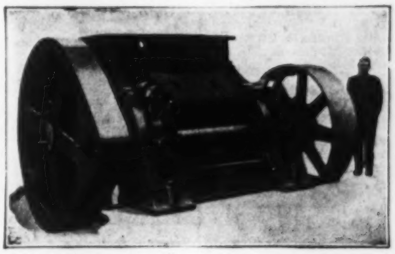
Pipe, Spiral Riveted
Abendroth & Root Mfg. Co.
American Spiral Pipe Wks.
Blaw-Knox Co.

Pipe, Vitrified Clay
Dickey Glass Mfg. Co.
Delaware Clay Products Co.

Pipe, Wood
American Wood Pipe Co.
Michigan Pipe Co.
Pacific Tank & Pipe Co.
Standard Wood Pipe Co.
Wyckoff & Son Co., A.

Plaster
Keystone Gypsum Fireproofing Co.

Poles, Steel Structural
Blaw-Knox Co.



UNDIVIDED RESPONSIBILITY

FOR ENTIRE
CRUSHING PLANT
EQUIPMENT

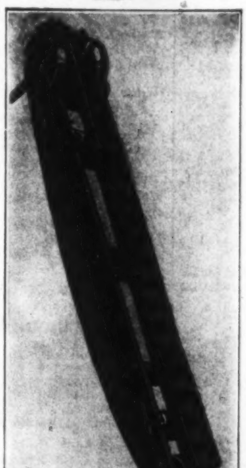
The many crushing plants which have been completely equipped by the Allis-Chalmers Manufacturing Company is evidenced by the satisfactory service which these plants are giving. The Allis-Chalmers Manufacturing Company takes the entire **responsibility** for the design of the plant and its equipment. These plants are built on the highest engineering standard following the best engineering practices.

Our Engineers at Your Service to make complete installation drawings.

Write for our Bulletins.

ALLIS-CHALMERS

MILWAUKEE, WIS. U. S. A.



Powder
Atlas Powder Co.

Pressed Steel Products
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Pulverizers
Jeffrey Mfg. Co.

Pumps, Air Lift
Chicago Pneumatic Tool Co
Ingersoll-Rand Co.
Sullivan Machinery Co.

Pumps, Boiler Feed, Steam
Earle Gear & Machine Co.
Fairbanks-Morse & Co.
Ingersoll-Rand Co.
Lea-Courtenay Co.
McGowan Co., John H.
Worthington Pump & Machinery Corp.

Pumps, Centrifugal and Multi-Stage High Lift
De Laval Steam Turbine Co.
Domestic Eng. & Pump Co.
Earle Gear & Machine Co.
Fairbanks-Morse & Co.
Gould's Mfg. Co.
Ingersoll-Rand Co.
Lea-Courtenay Co.
Manistee Iron Works
Morris Machine Works
Smith Co., T. L.
Worthington Pump & Machinery Corp.
Yeomans Brothers Co.

Pumps, Contractors'
C. H. & E. Mfg. Co.
Domestic Eng. & Pump Co.
Edson Manufacturing Co.
Ingersoll-Rand Co.
McGowan Co., John H.
Pulsometer Steam Pump Co.
Smith Co., T. L.

Pumps, Deep Well
Cook, A. D.
Domestic Engine & Pump Co.
Fairbanks-Morse & Co.
Gould's Mfg. Co.
Ingersoll-Rand Co.
Worthington Pump & Machinery Corp.
Yeomans Brothers Co.

Pumps, Diaphragm
Boston & Lockport Block Co.
Domestic Eng. & Pump Co.
Edson Manufacturing Co.
Gould's Mfg. Co.
Manistee Iron Works
Smith Co., T. L.

Pumps, Dredging and Sand
Marion Steam Shovel Co.
Morris Machine Works
Worthington Pump & Machinery Corp.

Pumps Elevator
Worthington Pump & Machinery Corp.

Pumps, Power
Cook, A. D.
Domestic Eng. & Pump Co.
Fairbanks-Morse & Co.
Gould's Mfg. Co.
Ingersoll-Rand Co.
Lea Courtenay Co.
Manistee Iron Works
McGowan Co., John H.
Worthington Pump & Machinery Corp.
Yeomans Brothers Co.

Pumps, Underwriters' Centrifugal
Allis-Chalmers Mfg. Co.
Earle Gear & Machine Co.
Lea-Courtenay Co.
Manistee Iron Works

Purifiers, Feed Water
N. Y. Continental Jewell Filtration Co.

Pyrometers
Taylor Instrument Co.'s

Rail and Rail Joints, Fastening & Specialties
Lackawanna Steel Co.
Rail Joint Co.

Railroad Ditchers
Ball Engine Co.
Marion Steam Shovel Co.
Osgood Co.

Railways, Industrial
Easton Car & Constr. Co.
Koppel Industrial Car & Equip. Co.
Lakewood Engr. Co.

Recorders, Water Stage
Gurley, W. & L. E.

Reinforcing Bar Couplings
Concrete Steel Co.
Marion Malleable Iron Wks.

Reinforcing Metal for Concrete Work
Amer. Steel & Wire Co.
Concrete Steel Co.
Lackawanna Steel Co.

Reinforcing, Concrete
(See Concrete Reinforcement)

River and Harbor Work
Raymond Concrete Pile Co.

Riveting Machines
Allen, John F.
Chicago Pneumatic Tool Co.

Road Oilers, Pressure
Austin Machy. Corp.

Road Oils & Preservatives
Barrett Co.
Standard Oil Co. of N. Y.
Texas Co.
Universal Road Machinery Co.

Road Rollers, Gasoline and Steam
Buffalo-Springfield Roller Co.

Rolls, Crushing
Allis-Chalmers Mfg. Co.
Jeffrey Mfg. Co.

Roofing, Metal
Amer. Sheet & Tin Plate Co.

Roofing, Prepared
Barrett Co.
Carey Co., Philip
Texas Co.

Roofing, Tile
Amer. Cement Tile Mfg. Co.
Keystone Gypsum Fireproofing Co.

Rope, Wire, Transmission Hoisting or Haulage
American Steel & Wire Co.
Leschen & Sons Rope Co.
Moon Co., Geo. C.
Roeblings Sons Co., J. A.
Wickwire-Spencer Steel Corp.

Sash Operating Apparatus
Allison Steel Products Co.
Drouve Co., G.
Lord & Burnham Co.

Sash Steel, Window
(See Window Sash)

Saw Rigs, Portable
C. H. & E. Mfg. Co.
Industrial Works
Knickerbocker Co.

Scales
Fairbanks-Morse & Co.

Schools & Colleges
See Directory of Engineers

Scrapers, Scarifiers, Plows, Etc.
Lansing Co.
Western Wheeled Scraper Co.

Screens, Rotary
Smith Engineering Co.

Screens, Sand, Gravel and Coal
Haiss Mfg. Co., Inc., Geo.
Hendrick Mfg. Co.
Link Belt Co.
Webster Mfg. Co.
Wickwire-Spencer Steel Corp.

Screens, Water Intake
Link Belt Co.

Sewage Disinfection
Electro Bleaching Gas Co.
Wallace & Tiernan Co.

Sewage Ejectors
Yeomans Brothers Co.

Shafting
Ryerson & Son, Joseph T.

Sharpening Machines, Drill Bit
Ingersoll-Rand Co.

Sheaves
Haiss Mfg. Co., Inc., Geo.

Sheets, Iron and Steel
Amer. Sheet & Tin Plate Co.
Ryerson & Son, Joseph T.

Sheets, Roofing & Siding
Amer. Sheet & Tin Plate Co.
Ryerson & Son, Joseph T.

Shoveling Machines
Myers Whaley Co.

Shovels, Electric
Ball Engine Co.
Bucyrus Co.
Marion Steam Shovel Co.
Myers Whaley Co.
Thew Shovel Co.

Shovels, Gasoline
Marion Steam Shovel Co.
Pawling & Harnischfeger Co.
Thew Shovel Co.

Shovels, Steam
Ball Engine Co.
Bucyrus Co.
Marion Steam Shovel Co.
Osgood Co.

Skips, Stone
Insley Manufacturing Co.
Lakewood Engr. Co.
Thew Shovel Co.

Skylights
Allison Steel Products Co.
Drouve Co., G.

Spreaders, Ballast
Bucyrus Co.

Sprinklers and Sweepers Street
Austin Machinery Corp.

Standpipes, Tanks & Towers
American Bridge Co.
Blaw-Knox Co.
Chicago Bridge & Iron Wks.
Pacific Tank & Pipe Co.
Pittsburgh-Des Moines Steel Co.
Tippett & Wood

Steam Specialties
Jenkins Bros.

Steel
Buffalo Steel Co.
Midwest Steel & Supply Co.
Ryerson & Son, Joseph T.

Steel Plate Construction
American Bridge Co.
Blaw-Knox Co.
Chicago Bridge & Iron Wks.
East Jersey Pipe Co.
Graver Corporation
Hendrick Mfg. Co.
Lackawanna Steel Co.
Memphis Steel Constr. Co.
N. Y. Central Iron Works
Petroleum Iron Works Co.
Pittsburgh-Des Moines Steel Co.
Tippett & Wood
Union Iron Works
Vulcan Iron Wks. of N. J.
Williams Co., G. H.

Steel, Structural
American Bridge Co.
Belmont Iron Works
Berlin Construction Co.
Blaw-Knox Co.
Boston Bridge Works
Buffalo Steel Co.
Eastern Bridge & Struc. Co.
Fort Pitt Bridge Works
Kellogg Structural Steel Co.
Kenwood Bridge Co.
King Bridge Co.
Lackawanna Bridge Co.
Lackawanna Steel Co.
Lakewood Engr. Co.
Louisville Bridge & Iron Co.
Memphis Steel Constr. Co.
Milwaukee Bridge Co.
Minneapolis Steel & Machinery Co.
Morava Construction Co.
Mount Vernon Bridge Co.
Penn Bridge Co.
Phoenix Bridge Co.
Pittsburgh-Des Moines Steel Co.
Riverside Bridge Co.
Shoemaker-Satterwait Bridge Co.
Snare Corp., Frederick
Snead Architectural Iron Works
Strauss Bascule Bridge Co.
Virginia Bridge & Iron Co.
Wisconsin Bridge & Iron Co.

Steel, Tool
Ryerson & Son Co., Jos. J.

Stokers
Babcock & Wilcox Co.

Strainers, Well
Cook, A. D.

Superheaters
Babcock & Wilcox Co.
Power Specialty Co.

Tables and Boards, Drawing
Dietzgen Co., Eugene
Hamilton Mfg. Co.

Tampers, Power
Pawling & Harnischfeger Co.

Tanks, Air Compressor
Chicago Pneumatic Tool Co.
East Jersey Pipe Co.
Westinghouse Traction Brake Co.

Tanks, Oil
Blaw-Knox Co.
N. Y. Central Iron Works

Tanks, Steel
(See Steel Plate Construction).

Tanks, Wood
American Wood Pipe Co.
Pacific Tank & Pipe Co.

Tapes, Steel and Metallic
Dietzgen Co., Eugene
Hamilton Mfg. Co.
Keuffel & Esser Co.
Lufkin Rule Co.

Tar
Barrett Co

Testing Laboratories
(See also Engineers' Directory).

Thermometers
Taylor Instrument Co.

Ties, Steel
American Bridge Co.

Tile, Concrete Bldg.
Keystone Gypsum Fireproofing Co.

Tile, Roof Cement
American Cement Tile Manufacturing Co.

Tin Plate
Amer. Sheet & Tin Plate Co.

Towers, Concrete
(See Hoists, Conc. Tower)

Towers, Radio
Blaw-Knox Co.

Towers, Transmission
Blaw-Knox Co.
Lakewood Engr. Co.

Track, Industrial and Portable
Easton Car & Constr. Co.
Koppel Industrial Car & Equip. Co.
Lackawanna Steel Co.

Tractors
Best Tractor Co.
Holt Mfg. Co.
Lakewood Engr. Co.

Tractors, Storage Battery
Lakewood Engr. Co.

Transits and Levels
Ainsworth & Sons, Wm.
Berger & Sons Co., C. L.
Buff & Buff Mfg. Co.
Gurley, W. & L. E.
Heller & Brightly
Kolesch & Co.

Trailers
Lakewood Engr. Co.

Transmission Machinery, Power
Leffel & Co., Jas.
Link Belt Co.

Treads, Safety
Concrete Steel Co.
Irving Iron Works
Universal Safety Tread Co.

Trolleys, I-Beam
Brown Hoisting Machy. Co.

Trucks, Motor
Autocar Co.
Chicago Pneumatic Tool Co.

Trucks and Trailers, Factory
Lakewood Engr. Co.

Tunnel Liner Plates
Blaw-Knox Co.
Hydraulic Steelcraft Co.

Turbines, Hydraulic Impulse and Reaction
Allis-Chalmers Mfg. Co.
Leffel & Co., Jas.
Pelton Water Wheel Co.
Smith Co., S. Morgan
Worthington Pump & Machinery Co.

Turbines, Steam
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.

Turntables
Easton Car & Contr. Co.
Lakewood Engr. Co.
Lansing Co.

Underpinning
Smith, Hauser & MacIsaac
Underpinning & Foundation Co.

Unloaders, Car
Haiss Mfg. Co., Geo.

Valves, Air, Water, Steam and Gas
Chapman Valve Mfg. Co.
Coffin Valve Co.
Coldwell-Wilcox Co.
Crane Co.
Golden-Anderson Valve Specialty Co.
Kennedy Valve Mfg. Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.
Powell Co., Wm.
Rensselaer Valve Co
Simplex Valve & Meter Co.
Smith Mfg. Co., A. P.

Valves, Altitude
Golden-Anderson Valve Specialty Co.
Ludlow Valve Mfg. Co.

Valves, Angle, Check, Gate and Globe
Chapman Valve Mfg. Co.
Coffin Valve Co.
Golden-Anderson Valve Specialty Co.
Jenkins Bros.
Ludlow Valve Mfg. Co.
Simplex Valve & Meter Co
Westinghouse Traction Brake Co.

Valves, Automatic
Golden-Anderson Valve Specialty Co.
Kennedy Valve Mfg. Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.
Westinghouse Traction Brake Co.

Valves, Float
Golden-Anderson Valve Specialty Co.

Valves, Regulating
Golden-Anderson Valve Specialty Co.
Ludlow Valve Mfg. Co.
Simplex Valve & Meter Co.

Valves, Return
Golden-Anderson Valve Specialty Co.
Lunkenheimer Co.

Valves, Safety
Golden-Anderson Valve Specialty Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.

Valves, Sewage
Chapman Valve Mfg. Co.

Valves, Sluice
Chapman Valve Mfg. Co.
Coffin Valve Co.

Ventilators
Allison Steel Products Co.
Drouve Co., G.
Lord & Burnham Co.

Wagons, Dumping
Western Wheeled Scraper Co.

Wagon Loaders
Austin Machinery Corp.
Haiss Mfg. Co., Inc., Geo.
Jeffrey Mfg. Co.
Link Belt Co.

Washers, Cut, Cast, Malleable
Smith Engineering Co.

Water-Main Cleaning
National Water Main Cleaning Co.

Waterproofing Compounds and Materials
Anti-Hydro Waterproofing
Barrett Co.
Carey Co., Philip
General Chemical Co.
Sonneborn Sons, L.
Texas Co.

Water Purification
Electro Bleaching Gas Co
Wallace & Tiernan, Inc.

Water Softeners
Amer. Water Softener Co.
Graver Corporation
International Filter Co.
N. Y. Continental Jewell Filtration Co.
Roberts Filter Mfg. Co.

Water Stage Recorders
Leupold Voelpel Co.

Water Sterilization
Electro Bleaching Gas Co.
Wallace & Tiernan, Inc.

Water Wheels, Impulse and **Reaction**
Leffel & Co., Jas.
Pelton Water Wheel Co.
Smith Co., S. Morgan
Worthington Pump & Machinery Corp.

Welding and Cutting Apparatus
Air Reduction Sales Co.
Blaw-Knox Co.
Milburn Co., Alexander
Prest-O-Lite Co.

Wheelbarrows
Lansing Co.

Winches, Ship, Hand, Steam and Electric
Brown Hoisting Mchy. Co.
Dobbie Frdy. & Mach. Co.
Flory Mfg. Co., S.
Lakewood Engr. Co.
Lidgerwood Mfg. Co.
National Hoisting Eng. Co

Window Sash Steel
Allison Steel Products Co.

Wire Glass
Mississippi Wire Glass Co.

Wire Mesh, Reinforcing
Wickwire-Spencer Steel Corp.

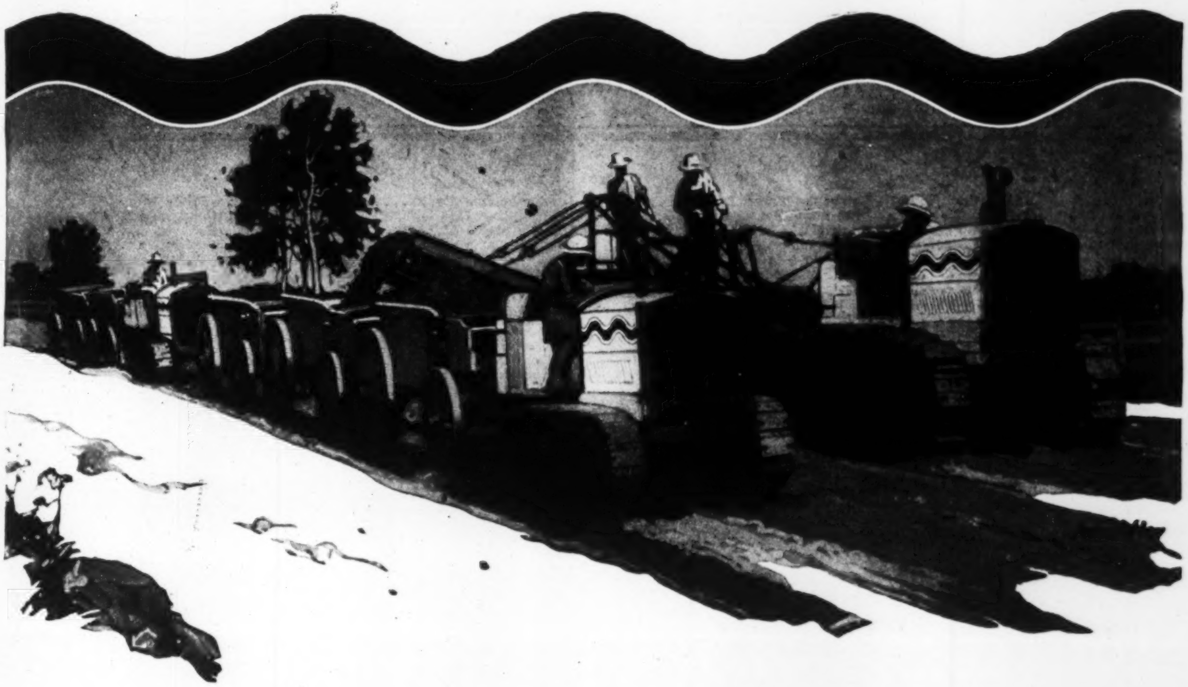
Wire Rope
(See Rope, Wire)

Wire and Cable, Electrical
American Steel & Wire Co

Wood Casings
Michigan Pipe Co., The

Wood Preservatives
Barrett Co.
Northeastern Co.
Protexol Corp.
Republic Creosoting Co.
S. P. F. Wood Preserv. Co.

Wrenches
Greene, Tweed & Co.
Lowell Wrench Co.



Setting The Pace For Low-Cost Road Work

The "Caterpillar's" field of usefulness is by no means limited to road making. On farm or ranch, in the mining, oil and lumber industries, for snow removal and other civic work—wherever power and endurance are at a premium, the "Caterpillar"* has no real competitor.*

The most essential unit in any efficient road-building outfit today is a "Caterpillar"* Tractor. It is the safest investment a road official or contractor can make. After hitching a 10-ton "Caterpillar"* to an elevating grader in place of 18 head of mules, an Illinois contractor says: "From August 25 to September 25, 1921, we moved 29,975 yards of dirt with the "Caterpillar"* outfit as against 18,000 yards a month formerly averaged with the mules. The "Caterpillar,"* running 10 hours a day for over three months, has not cost us a penny for upkeep." Similar accounts come from "Caterpillar"* users throughout the country. Working singly or for replacing teams entirely, "Caterpillars"* speed up every dirt moving and hauling operation, and save money on every job. Let us prove it on *your* job.

**There is but one "Caterpillar"—Holt builds it*

CATERPILLAR
Reg. U.S. Pat. Off.
HOLT
PEORIA, ILL.
STOCKTON, CALIF.

THE HOLT MANUFACTURING CO., *Inc.*
Branches and service stations all over the world.
Eastern Division: 50 Church St., New York

2429 Farnam St., Omaha, Neb.
417 Washington Ave., N., Minneapolis, Minn.
5th and Court Sts., Des Moines, Ia.
2045-47 Main St., Kansas City, Mo.
Holt Company of Texas, Dallas, Texas

ALPHABETICAL INDEX TO ADVERTISEMENTS

Page
Abendroth & Root Mfg. Co....104
Advance Engineering Co., The.. 95
Ainsworth & Sons, Wm........117
Air Reduction Sales Co.......111
Allen Co., John F............112
Allis-Chalmers Mfg. Co.......125
Allison Steel Products Co...... 86
Ambursen Constr. Co..........100
American Bridge Co. 113
American Cast Iron Pipe Co....104
Amer. Cement Tile Mfg. Co...... 86
American Chimney Corp.......110
American Creosote Works...... 82
American Creosoting Co........ 82
American Fence Constr. Co..... 87
American Gas Furnace Co......111
American Hoist & Derrick Co... 93
American Sheet & Tin Plate Co. 87
American Spiral Pipe Works...104
American Steel & Wire Co...... 93
American Water Softener Co.... 99
American Wood Pipe Co.......103
Anti-Hydro Waterproofing Co... 85
Atlantic Gulf & Pacific Co..... 91
Atlas Powder Co............... 36
Austin Machinery Corp......... 19
Autocar Company 42

Babcock & Wilcox Co.........111
Ball Engine Co................ 11
Barrett Co. ....4th Cover
Bay City Dredge Works......... 94
Belmont Iron Works...........112
Berger & Sons, C. L..........116
Berlin Construction Co........113
Best Tractor Co., C. L.......... 9
Blaw-Knox Co.................. 20
Boston Bridge Works, Inc......114
Boston & Lockport Block Co.... 75
Browning Co. 94
Brown Hoisting Mchy. Co...... 17
Bucyrus Co.................... 32
Buff & Buff Mfg. Co..........117
Buffalo-Springfield Roller Co... 76
Buffalo Steel Co............... 85
Builders Iron Foundry 98
Byers Machine Co............. 95

C. H. & E. Mfg. Co........... 86
Carey Co., Philip............. 76
Cement Gun Co................ 14
Central Foundry Co...........104
Chapman Valve Mfg. Co........ 10
Chicago Bridge & Iron Wks....109
Chicago Pneumatic Tool Co..... 8
Cleveland Crane & Engineering Co. 96
Clyde Iron Works Sales Co..... 33
Coal & Iron National Bank....100
Coffin Valve Co............... 38
Coldwell-Wilcox Co........... 98
Concrete Steel Co.............. 4
Consolidated Expanded Metal Co. 86
Cook A. D....................108
Crane Co.....................101
Custodis Chimney Constr. Co., Alphons 110

Davenport Locomotive Works.. 73
De Laval Steam Turbine Co....106
Delaware Clay Products Co..... 80
Dickey Clay Mfg. Co., W. S.... 80
Dietzgen Co., Eugene..........116
Dobbie Fdry. & Machine Co.... 93
Domestic Engine & Pump Co...106
Drouve Co., G................ 83
Dunn Wire-Cut Lug Brick Co.. 82

Earle Gear & Mach. Co...106, 113
East Jersey Pipe Co...........105
Eastern Bridge & Structural Co 114
Easton Car & Constr. Co....... 75
Edson Mfg. Co................106
Electro Bleaching Gas Co...... 99
Eng'g Schools & Colleges 121
Engineers Directory 118
Eppinger & Russell Co........ 82
Exchange Sawmills Sales Co... 81

Page
Fairbanks-Morse & Co........106
Fate-Root Heath Co........... 73
Flory Mfg. Co., S............. 92
Foote Concrete Mchy. Co....... 23
For Sale Ads.................. 63
Fort Pitt Bridge Works........113
Fox & Co., John.............. 98
Fritz Co., Inc................ 96

Gamon Meter Co..............102
General Chemical Co........... 86
General Concrete Constr. Co....110
Glamorgan Pipe & Fdry. Co....104
Golden-Anderson Valve Spec. Co. 37
Gould's Mfg. Co..............107
Graver Corporation 99, 109
Greene, Tweed & Co........... 99
Gurley, W. & L. E............116

Hadfield-Penfield Steel Co...... 75
Haiss Mfg. Co., Geo........... 15
Hamilton Mfg. Co.............116
Hayward Co................... 95
Heine Chimney Co.............110
Heinicke, Inc., H. R..........110
Heller & Brightly 117
Hendrick Mfg. Co............. 84
Hersey Mfg. Co............... 98
Holt Mfg. Co., The...........127
Hydraulic Steelcraft Co........ 28

Independent Bridge Co.........114
Independent Concrete Pipe Co... 80
Industrial Works 96
Ingersoll-Rand Co............. 31
Insley Mfg. Co................ 29
Inspecting Engineers 121
International Filter Co........ 99
Irving Iron Works............. 87

Jeffrey Manufacturing Co..... 40
Jenkins Bros. 98

Keasbey & Mattison Co........ 83
Kellogg Co., M. W............110
Kellogg Structural Steel Co....114
Kennedy Valve Mfg. Co........100
Kenwood Bridge Co............114
Keuffel & Esser Co............115
Keystone Gypsum Fireproofing Co. 12, 13
Kiesler Co., Joseph F......... 95
King Bridge Co...............113
Knickerbocker Co. 24
Kolesch & Co.................117
Koppel Industrial Car & Equip. Co. 75

Lackawanna Bridge Co........1 3
Lackawanna Steel Co.......... 34
Lakewood Engr. Co............ 27
Laclede Steel Co.............. 85
Lansing Co.................... 22
Lawrence Cement Co........... 84
Lawson & MacMurray........... 82
Lea-Courtenay Co.............106
Leadite Co., Inc..............104
Leffel & Co., James...........108
Leschen, A., & Sons Rope Co... 94
Leopold & Co., J.............. 76
Leupold, Voelpel & Co.........100
Lidgerwood Mfg. Co........... 91
Lietz Co., A..................116
Link Belt Co...........3rd Cover
Living-Stone Co............... 85
Lock Joint Pipe Co............ 79
Lord & Burnham Co............ 83
Louisville Bridge & Iron Co....112
Lowell Wrench Co............109

Page
Lunkenheimer Co............. 98
Lufkin Rule Co...............117
Ludlow Valve Mfg. Co........102

MacArthur Concrete Pile & Foundation Co. 86
McGowan Co., John H........108
McGraw-Hill Book Co....7, 83, 112
McKiernan-Terry Drill Co...... 88
McMyler Interstate Co......... 94
M. & M. Form Clamp Co....... 85
Machold & Riddell.............104
Manistee Iron Works Co.......108
Marion Malleable Iron Works.. 92
Marion Steam Shovel Co....... 16
Memphis Steel Construction Co.109
Michigan Pipe Co.............103
Midwest Steel & Supply Co.... 86
Milburn Co., Alexander.......109
Milwaukee Bridge Co..........112
Minneapolis Steel & Machinery Co. 89
Mississippi Wire Glass Co...... 85
Mitchell-Tappen Co........... 87
Monighan Machine Co......... 94
Moon Co., Geo. C............. 90
Morris Machine Works........108
Morava Construction Co.......114
Mt. Vernon Bridge Co.........114
Mundy Hoisting Eng. Co., J. S.. 18
Myers-Whaley Co............. 75

National Hoisting Engine Co.... 88
Natinoal Lead Co............... 6
Nat'l Water Main Cleaning Co.. 99
Neptune Meter Co............. 97
Newport Culvert Co., Inc...... 80
N. Y. Central Iron Works, Inc..109
N. Y. Con. Jewell & Filt. Co..100
Northeastern Co............... 82
Northwestern Expanded Metal Co. 86
Norton, Inc., A. O............112

Ohio Locomotive Crane Co..... 96
Orton & Steinbrenner Co. 94
Osgood Co.................... 95
Owen Bucket Co............... 95

Pacific Tank & Pipe Co.......103
Parsons Co.................... 90
Parsons, Klapp-Brinckerhoff & Douglass 86
Pawlnig & Harnischfeger Co.... 90
Pease Co., C. F., The.........117
Pelton Water Wheel Co........108
Penn Bridge Co...............112
Pennsylvania Cement Co....... 84
Pennsylvania Salt Mfg. Co.....100
Petroleum Iron Works Co......109
Phoenix Bridge Co., The.......114
Pittsburgh Des Moines Steel Co 109
Pittsburgh Filter & Engr. Co... 98
Pittsburgh Meter Co...........103
Polk, Genung, Polk Co.........111
Porter Co., H. K..............123
Positions Vacant & Wanted.... 63
Powell Co., Wm...............102
Power Specialty Co............111
Prest-O-Lite Co............... 41
Proposals 58
Protexol Corp. 82
Pulsometer Steam Pump Co. ....2nd Cover

Rail Joint Co................. 75
Ramapo Iron Works........... 73
Raymond Concrete Pile Co...... 5
Rensselear Valve Co. 99
Republic Creosoting Co........ 8[illegible]
Ridgeway & Son Co., Craige.... 73
Riverside Bridge Co...........114

Page
Roberts Filter Mfg. Co........ 99
Robins Conveying Belt Co...... 92
Roebling's Sons Co., John A.... 96
Rust Engineering Co..........111
Ryerson & Son Co., Jos. T..... 39

S. P. F. Wood Preserving Co.... 82
Sauerman Bros. 92
Searchlight Section 58
Shoemaker-Satterthwait Bridge Co. 114
Simplex Valve & Meter Co....102
Smidth & Co. F. L............ 82
Smith Engineering Works...... 26
Smith Mfg. Co., A. P.........104
Smith Co., S. Morgan.........108
Smith Co., T. L. 25
Smith, Hauser & MacIsaac, Inc. 86
Snare Corp. Frederick.........113
Snead Architectural Iron Wks..114
Sonneborn Sons, Inc., L........ 86
Spencer, White & Prentis, Inc.. 76
Standard Oil Co. of N. Y...... 78
Standard Wood Pipe Co.......103
Steele & Condict, Inc. 112
Strauss Bascule Bridge Co......114
Stroudsburg Engine Co......... 91
Sullivan Machinery Co......... 91
Summerhays & Sons, Wm......110

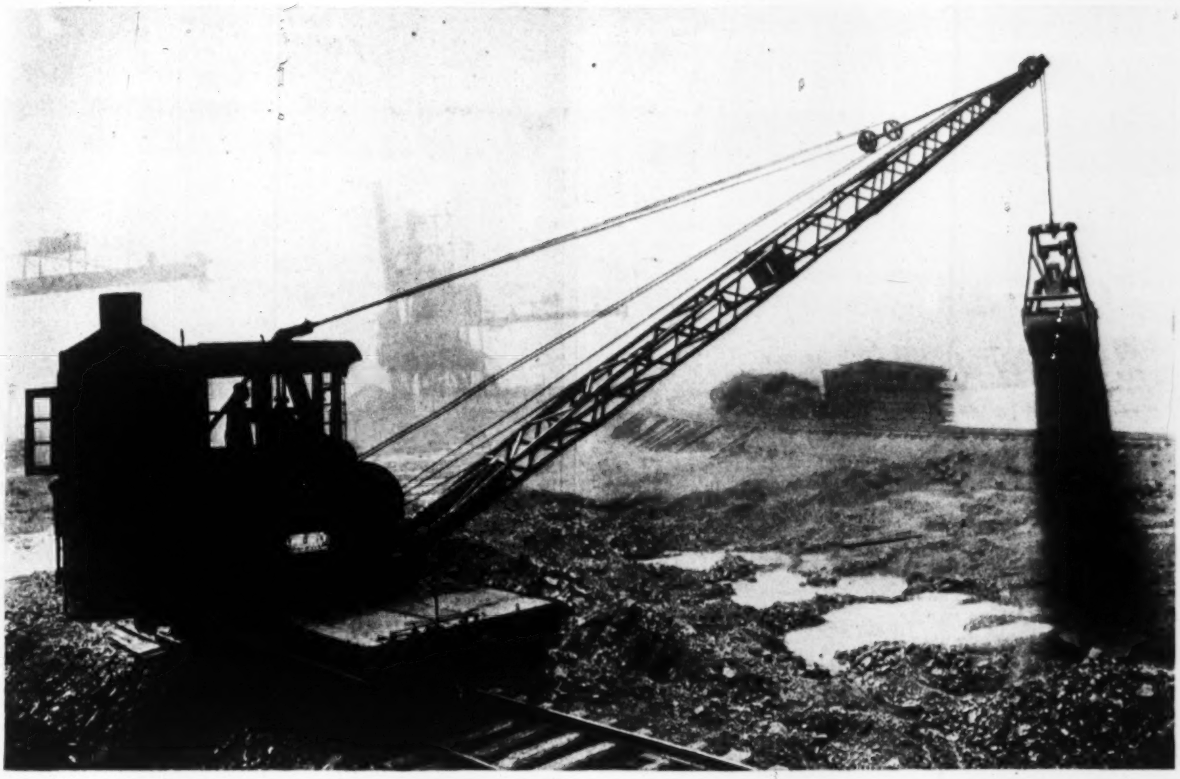
Taylor Instrument Co.'s....... 102
Terry Mfg. Co................. 93
Terry & Tench Co., Inc........113
Texas Company 77
Thew Shovel Co............... 35
Tippett & Wood.............1 9
Toledo Crane Co............... 6

Underpinning & Foundation Co. 86
Union Iron Works............. 88
United Concrete Pipe Co....... 80
U. S. Cast Iron Pipe & Fdry Co.104
Universal Clamp Co........... 85
Universal Drafting Mach. Co..117
Universal Road Machinery Co.. 80
Universal Safety Tread Co...... 87

Virginia Bridge & Iron Co......113
Vulcan Iron Works of Chicago.. [illegible]
Vulcan Iron Works, Inc., Jersey City, N. J. 95
Vulcan Iron Works of Wilkes-Barre 30
Vulcanite Portland Cement Co.. 84

Wallace & Tiernan Co......... 99
Want Advertisements 63
Warren Foundry & Mach. Co.. 104
Weber Chimney Co...........110
Webster Mfg. Co.............111
Western Wheeled Scraper Co... 76
Westinghouse Traction Brake Co. 76
Whitcomb Co., Geo. D......... 75
Wickes Bros. 115
Wickwire Spencer Steel Corp.. 92
Wiederholdt Construction Co. 110
Williams Co., G. H............ 95
Willsea Works, The 84
Wisconsin Bridge & Iron Co...114
Wisconsin Motor Mfg. Co...... 21
Wood & Co., R. D.............104
Woodward Governor Co.......106
Worthington Pump & Machinery Corp. 106
Wyckoff & Son Co., A........103
Wyckoff Pipe and Creosoting Co. Inc. 82

Yeomans Brothers Co.........108



Another Record of Performance of Link-Belt Cranes

"IN our coal storage plant, where thousands of tons of coal are handled every week, it is necessary to have reliable equipment that can load and unload cars quickly and easily,—and we have found that our Locomotive Cranes do this effectively, and at a tremendous saving each year," says Mr. John Anderson, Chief Eng. of the Milwaukee Electric Ry. and Light Co., Milwaukee, Wis.

We now operate 3 Link-Belt Cranes, two of which are electrically driven and one by steam. Each of the Link-Belt Cranes is equipped with a grab bucket, and operated by one man assisted by 3 shovelers. Each one can easily handle 600 tons of coal per 9-hour day—loading or unloading, as the case may be.

Fifty men would be necessary were we to handle this coal by the old hand shoveling method.

Our cranes run on standard gauge tracks, which enables us to use them for switching cars. This speeds up the work, as the cars can be conveniently placed for loading or unloading."

This statement is typical of many which have come to us from users of Link-Belt Cranes.

No matter what kind of materials you handle, a Link-Belt Crane, will do the work quickly and at a low cost. In the one machine are combined a portable hoisting engine, swinging derrick, grab bucket unloader, and switch engine.

Send for Catalog No. 370

840

LINK-BELT COMPANY

PHILADELPHIA CHICAGO INDIANAPOLIS

New York - - - 299 Broadway
Boston 9 - - - 49 Federal St.
Pittsburgh - - - 1501 Park Bldg.
St. Louis - Central Nat'l Bank Bldg.
Buffalo - - - 547 Ellicott Square
Wilkes Barre - - 2d Nat'l Bank Bldg.
Huntington, W. Va. - Robson-Prichard Bldg
Cleveland - - - - 429 Kirby Bldg.
Detroit - - - - 4210 Woodward Ave.
Kansas City, Mo. - - 306 Elmhurst Bldg.
Seattle - - - - 820 First Ave., S.
Portland, Ore. - - - First and Stark Sts.
San Francisco - - - - 168 Second St.
Los Angeles - - 163 N. Los Angeles St.
Denver Lindrooth, Shubart & Co., Boston Bldg.
Louisville, Ky. - - F. Wehle, Starks Bldg.
New Orleans - - -
C. O. Hins 504 Carondelet Bldg.
Birmingham, Ala. - -
S. L. Morrow, 720 Brown-Marx Bldg.

In Canada - Canadian Link-Belt Co., Ltd., Toronto and Montreal
H. W. CALDWELL & SON CO., CHICAGO, 17th and Western Ave. NEW YORK, 299 Broadway DALLAS, TEXAS, 709 Main St.

LINK-BELT

Barrett Specification Roofs

Bonded
for 20 and 10
Years

Barrett Specification 20-Year Bonded Roof on Arlington Building, Washington, D. C. General Contractors: Underpinning & Foundation Co., New York, N.Y. Roofer: Warren Ehret Company, Washington, D. C.

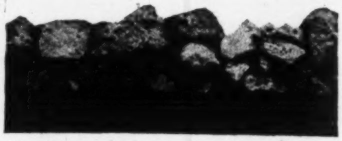
Architects:
Wyatt & Nolting,
Baltimore, Md.

A *No-Risk Roof* on the War Risk Bureau—

THE business of insuring the doughboy grew to such enormous proportions that a new building to house the War Risk Bureau became imperative.

The result was the Arlington Building at Washington, D. C.—the new home of the War Risk Bureau.

This imposing, ten-story structure is up-to-date in every respect of workmanship and construction, from foundation to roof — a 20-Year Barrett Specification Bonded Roof, of course.



Actual photograph of a cross-section of a Barrett Specification Roof. Note the uniform Distribution of Specification Pitch between the layers of Felt.

Since these roofs outlast the Surety Bond by many years without maintenance expense of any kind, they cost less *per year of service* than any other type of permanent roof. That is why a majority of the permanent modern buildings in America are covered with Barrett Specification Roofs.

The Surety Bond may be obtained on any Barrett Specification Roof of 50 squares or larger, in towns of 25,000 or more, *and in many smaller places where our inspection service is available.*

Our supervision of your construction, followed by careful inspection of the finished roof, are all that are necessary after The Barrett Specification is incorporated in your building plans. You then receive the Surety Bond that guarantees your roof for twenty or ten years.

The Barrett Specification Type "AA" 20-Year Bonded Roof represents the most permanent roof covering it is possible to construct, and while we bond it for 20 years only, we can name many roofs of this type that have been in service over 40 years and are still in good condition.

Where the character of the building does not justify a roof of such extreme length of service, we recommend the Barrett Specification Type "A" Roof, bonded for 10 years. Both roofs are built of the same high grade materials, the only difference being in the quantity used.

Before specifying or closing contract for a Barrett Specification Bonded Roof, be sure to read carefully all the stipulations in the specification.

Full details regarding these Bonded Roofs and copies of The Barrett Specification, sent free on request.

The Barrett Company

New York
Pittsburgh
Nashville
Bangor
Columbus
Chicago
Detroit
Syracuse
Washington
Richmond
Philadelphia
New Orleans
Seattle
Johnstown
Latrobe
Boston
Birmingham
Peoria
Lebanon
Bethlehem
Elizabeth
Buffalo
Baltimore
St. Louis
Kansas City
Atlanta
Youngstown
Omaha
Cleveland
Minneapolis
Duluth
Milwaukee
Houston
Cincinnati
Dallas
Salt Lake City
Toledo
Denver
Jacksonville

THE BARRETT COMPANY, Limited: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S.